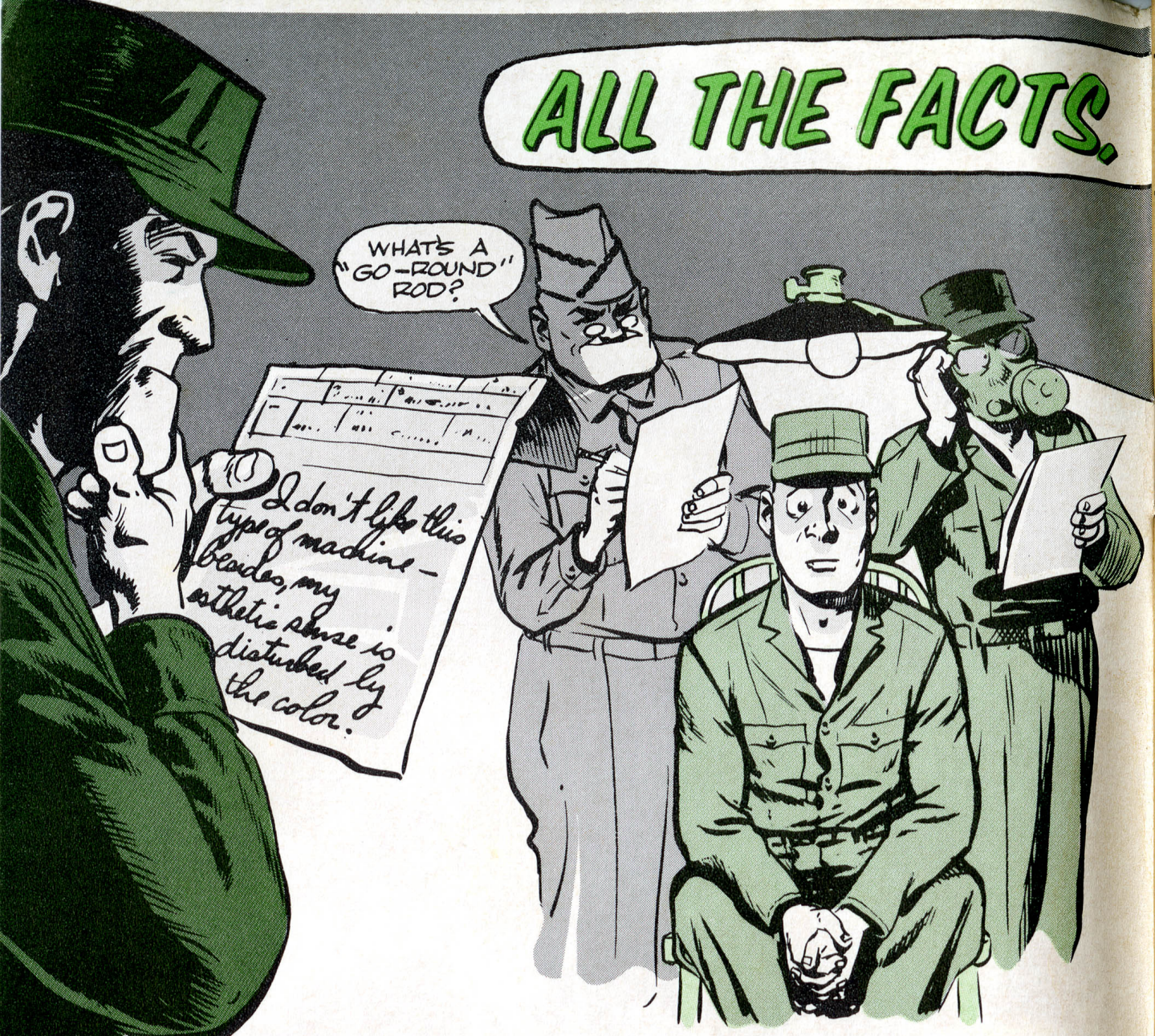
Issue 71

P.S

1958 Series

THE PREVENTIVE MAINTENANCE MONTHLY



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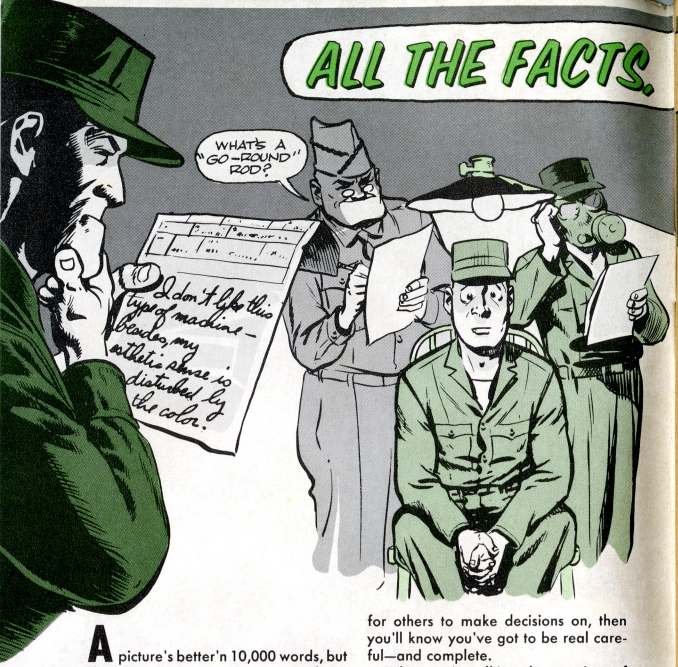

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So, just the facts . . . all the facts, Man.

FRONT COVER

The soldier who does his Preventive Maintenance right—per his equipment's Technical Manual—won't have any birds' nests, real or otherwise.

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IN THIS ISSUE

EQUIPMENT

Publications and Forms	2, 12, 63
Wheeled Vehicles	16, 17, 21, 37, 60
Tracked Vehicles	17, 18, 23, 40, 61, 64
Tent Stoves	19
Wood Pallets	19
Communication Items	37, 46
Drums and Storage Cans	38, 39
Missiles	41-45, 60
Flame-Throwers	48
Clothing	50
Refrigerator Units	50
Army Aircraft	52-55
Engineer MWO Kits	56
Generators	58, 59

DEPARTMENTS

Connie Rodd	16
Question and Answer Department	37
Contributions	60
Connie Briefs	65

PS wants your ideas and contributions, and is glad to answer your questions. Just write to: **Sgt Half-Mast, PS, Raritan Arsenal, Metuchen, New Jersey.** Names and addresses are kept in confidence.

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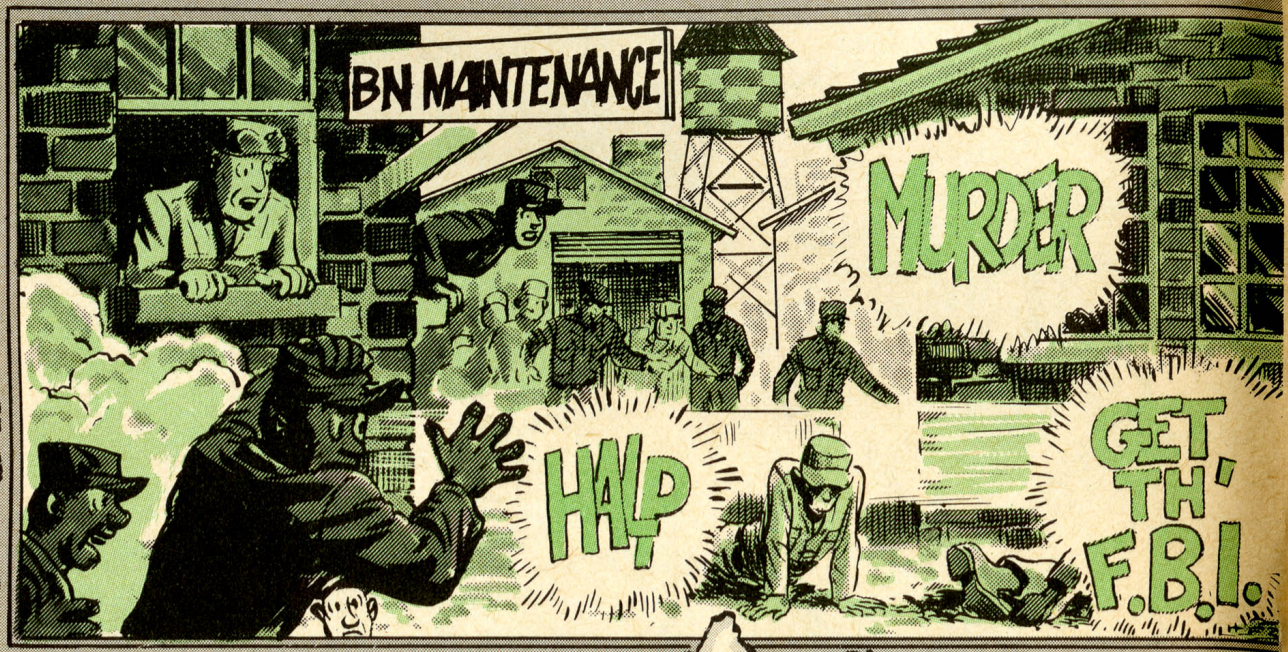
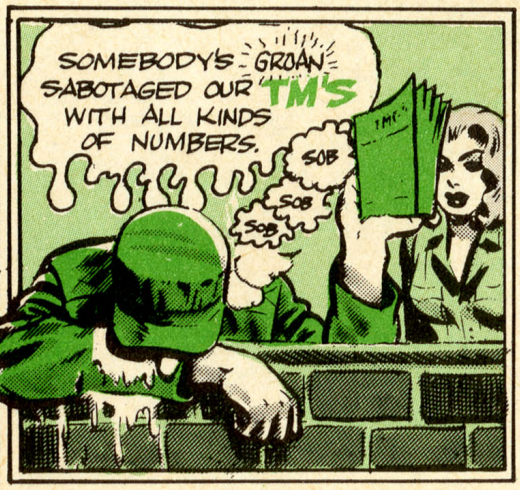
★ ★ FINAL ★ ★

YOUR NEW



EDITOR'S NOTE



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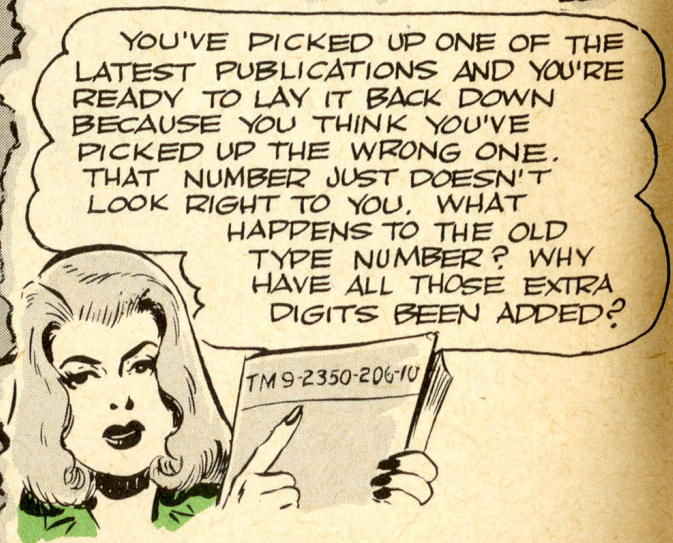

That new number's been added so in the future it'll make it easier for you to find the publications you need. As you know, most every item of supply's been put into a group and class.

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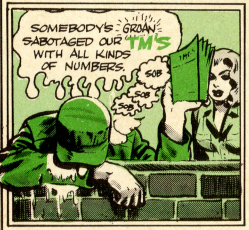

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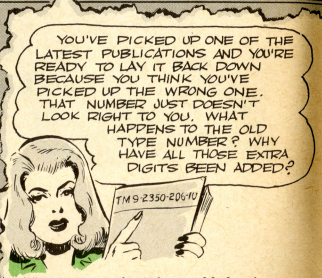

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NUMBERING SYSTEM

So in order to carry the Federal Supply Classification to the publication number, they've taken on a new look and have added the group and class.

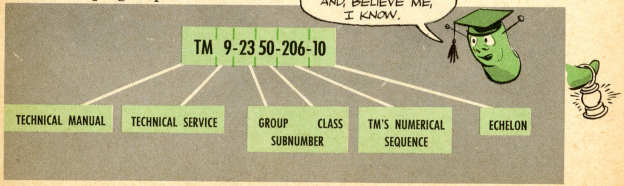
Then too, you'll have to have a number so you can tell one publication from another in the group and class.

And it would help if you could tell from the number just which echelon of maintenance the publication applies—it's there.

Now you know the why's of the new number, here's how it works.

Say you've run into a TM number that looks like this: TM 9-2350-206-10. You know that it's a technical manual, and you know that it belongs to Ordnance, but the rest is all Greek to you.

Well, step right up for a translation.



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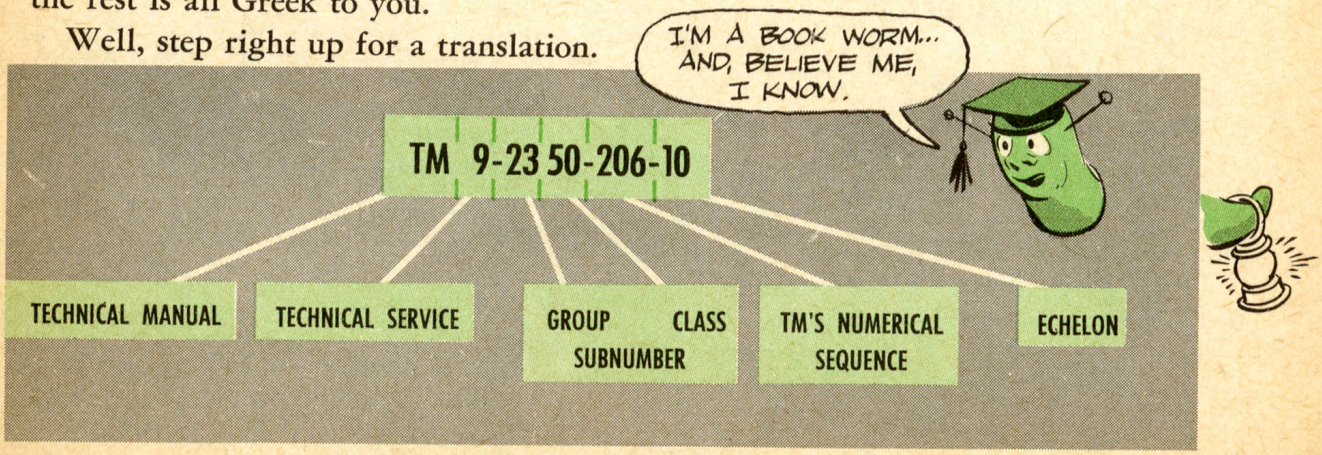
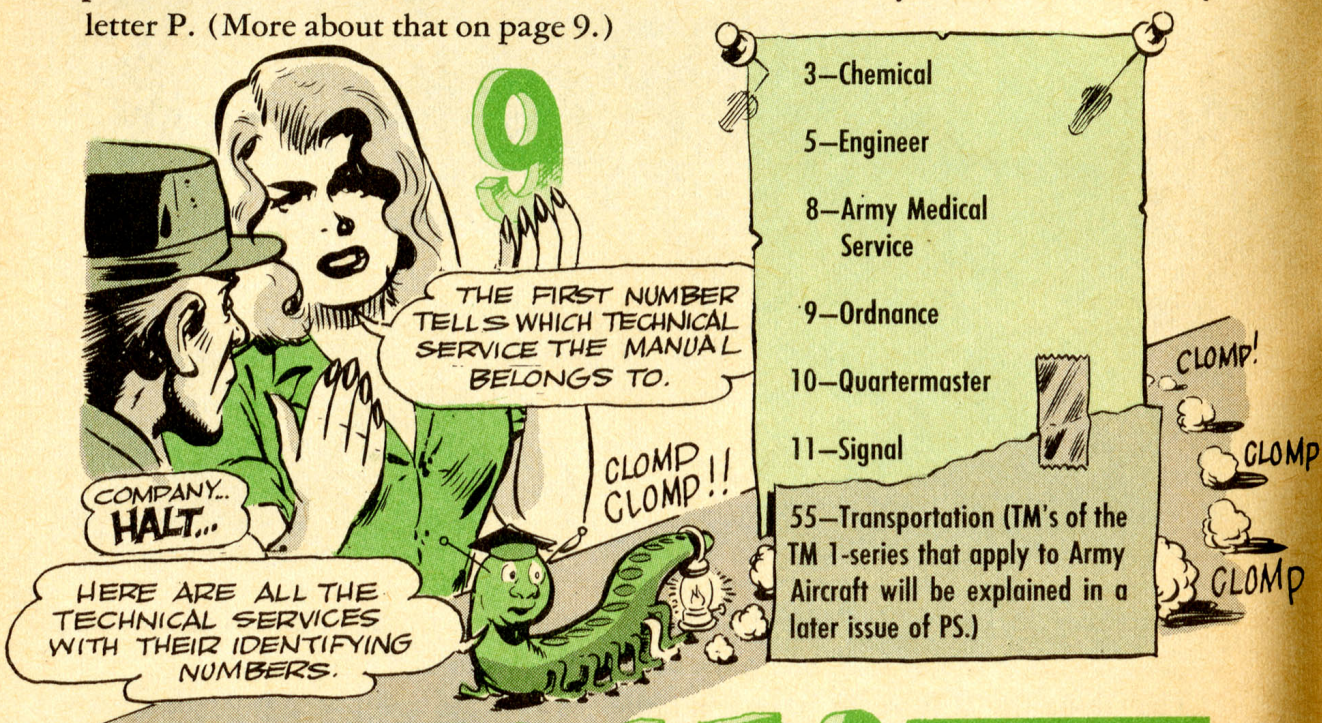


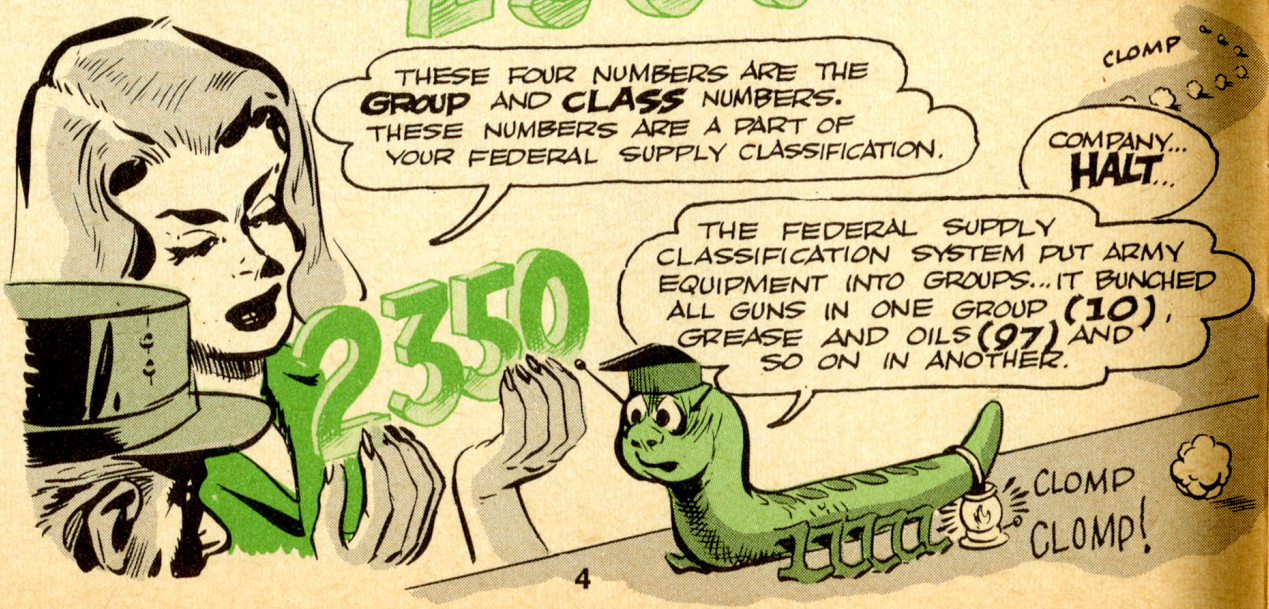
TM 9 -2350-206-10

Now let's see what happens when it's broken down number by number.

You know you'll always have TM, which stands for Technical Manual. The parts lists will also be called TM's—number will be exactly the same followed by letter P. (More about that on page 9.)

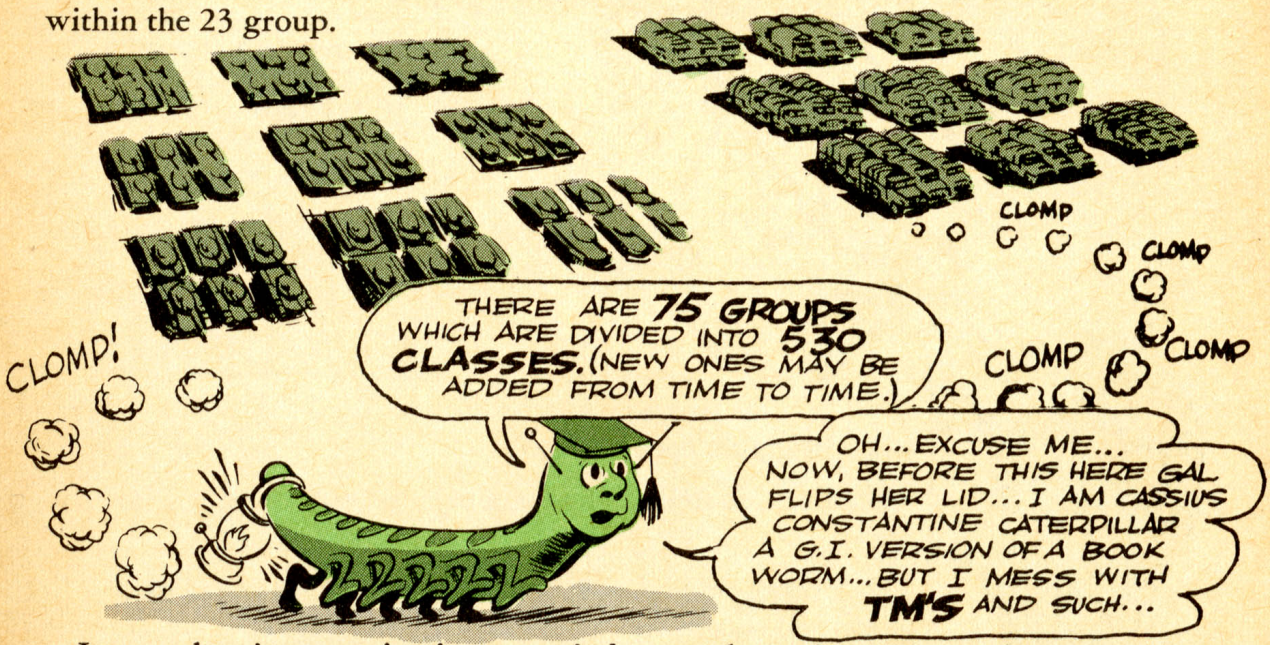


TM 9-2350-206-10

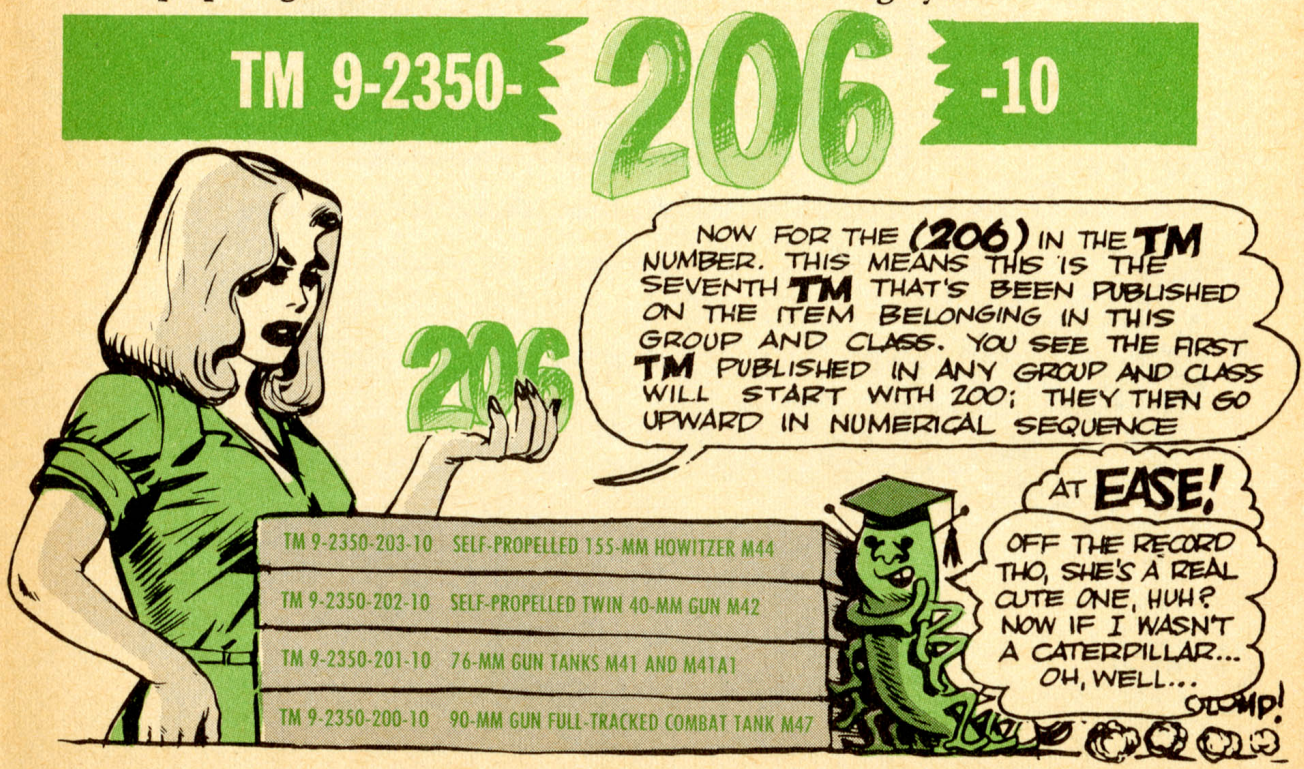


Then when it had the equipment in groups, it broke the groups down into classes—something like putting all the same size marbles in one group and then separating them by color within that group.

Take 2350 for example: The group number 23 is for Motor Vehicles, Trailers and Cycles. And the class number 50 is for Tanks and Self-Propelled Weapons within the 23 group.



In case there's a question in your mind as to why an item was put into a group and class, SB 708-301 gives the nomenclature, groups and classes approved for use in preparing item identification in the Federal Catalog System.



TM 9-2350-206-10

—10—(1st echelon) Operator or crew

—12—(1st & 2nd echelon) Operator or crew and organizational maintenance

—13—(1st thru 3rd echelon) Operator or crew, organizational and direct support field maintenance

—14—(1st thru 4th echelon) Operator or crew and organizational thru both echelons of field maintenance

—15—(1st thru 5th echelon) Operator or crew and all echelons thru 5th echelon or depot maintenance

—20—(2nd echelon) Organizational maintenance

—30—(3rd echelon) Direct support field maintenance

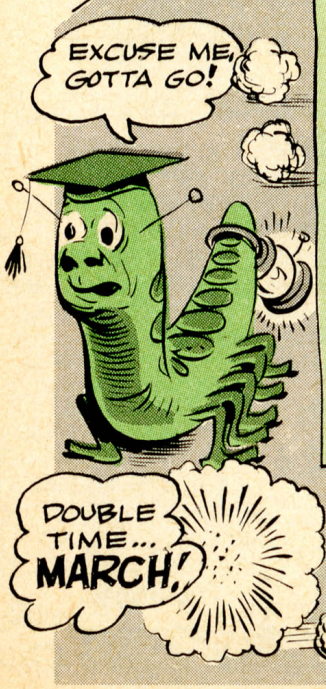
—34—(3rd & 4th echelons) Both echelons of field maintenance

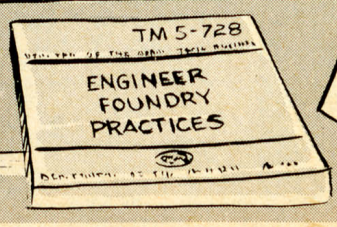
—35—All echelons of maintenance above organizational

—40—4th echelon only

—50—5th echelon only or depot maintenance

TM'S OF A GENERAL NATURE WILL GET A SERIES NUMBER (SUCH AS A TECHNICAL SERVICE) PLUS A NUMBER FROM 200 THROUGH 999.





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—15—(1st thru 5th echelon) Operator or crew and all echelons thru 5th echelon or depot maintenance

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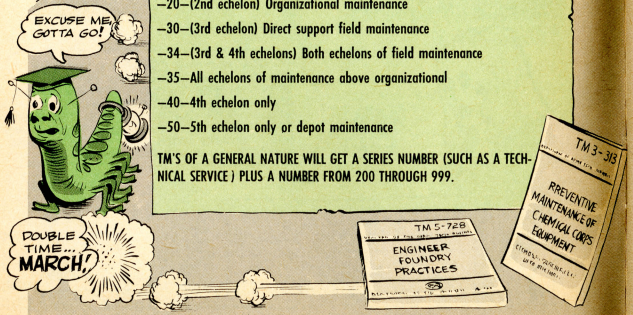


TM 3-1040-200-10

Technical Manual	Chemical	Group	Class	TM's Numerical Sequence	Echelon
		(Weapons)	(Chemical Weapons and Equipment)	(Your first TM number in code group and class gets numbered 200; the second 201, and so on)	(1st echelon or Operator's manual)

TM 5-6115-200-20

Technical Manual	Engineer	Group	Class	TM's Numerical Sequence	Echelon
		(Electric Wire, and Power and Distribution Equipment)	(Generators and Generator Sets, Electrical)		(2nd echelon or organizational maintenance)

TM 9-2350-201-10

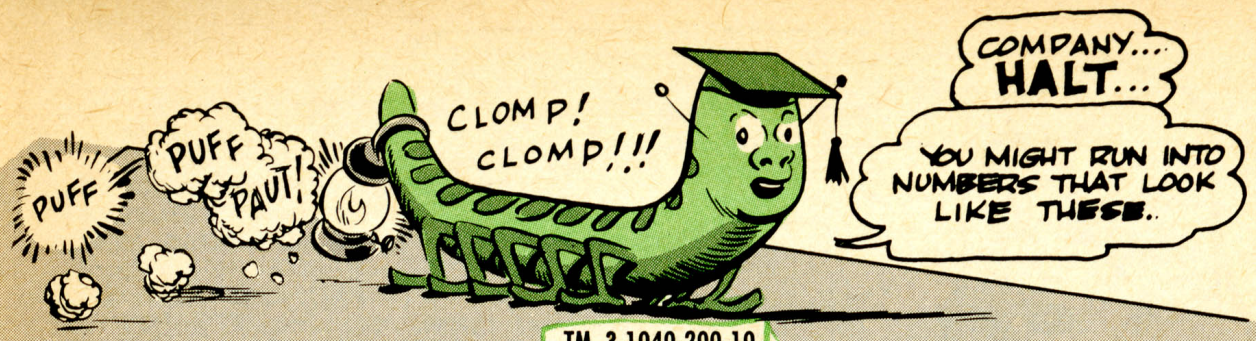
Technical Manual	Ordnance	Group	Class	TM's Numerical Sequence	Echelon
	(Motor Vehicles, Trailers, Cycles)		(Tanks and Self-Propelled Weapons)	(2nd TM published in this group and class)	(Operator's manual)

TM 10-7310-201-20

Technical Manual	Quartermaster	Group	Class	TM's Numerical Sequence	Echelon
	(Food Preparation and Serving Equipment)		(Food Cooking, Baking and Warming Equipment)		(Organizational Maintenance)

TM 55-3950-200-10

Technical Manual	Transportation	Group	Class	TM's Numerical Sequence	Echelon
		(Materials Handling Equipment)	(Winches, Hoists, Cranes and Derricks)		(Operator's manual)



TM 3-1040-200-10

- Technical Manual
- Chemical
- Group (Weapons)
- Class (Chemical Weapons and Equipment)
- TM's Numerical Sequence (Your first TM number in code group and class gets numbered 200; the second 201, and so on)
- Echelon (1st echelon or Operator's manual)

TM 5-6115-200-20

- Technical Manual
- Engineer
- Group (Electric Wire, and Power and Distribution Equipment)
- Class (Generators and Generator Sets, Electrical)
- TM's Numerical Sequence
- Echelon (2nd echelon or organizational maintenance)

TM 9-2350-201-10

- Technical Manual
- Ordnance
- Group (Motor Vehicles, Trailers, Cycles)
- Class (Tanks and Self-Propelled Weapons)
- TM's Numerical Sequence (2nd TM published in this group and class)
- Echelon (Operator's manual)

TM 10-7310-201-20

- Technical Manual
- Quartermaster
- Group (Food Preparation and Serving Equipment)
- Class (Food Cooking, Baking and Warming Equipment)
- TM's Numerical Sequence
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TM 55-3950-200-10

- Technical Manual
- Transportation
- Group (Materials Handling Equipment)
- Class (Winches, Hoists, Cranes and Derricks)
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HERE'S HOW THE APPENDICES FOR THE DIFFERENT

TM 9-2350-200-10
DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL
(1st ECHELON)

APPENDIX I—References

Publications Indexes. Supply manuals and TM's relating to this particular TM. Other publications that have info that might be helpful.

APPENDIX II—tells you that the Maintenance Allocation Chart appears in Appendix II of TM 9-2350-200-20.

APPENDIX III—basic issue items, repair parts and tool list. This appendix has the same type info you had in Section I of your 7 SNL's.

This is the only echelon that'll have the Appendix III published within the TM.

TM 9-2350-200-20
DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL
(2nd ECHELON)

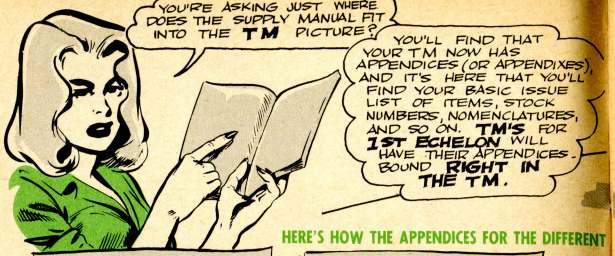
APPENDIX I—References

(Same type of info that you find in -10 Appendix, but your -20 references will relate to organizational maintenance.)

APPENDIX II—Maintenance Allocation Chart. This lists all maintenance and repair for all echelons.

TM 9-2350-200-20P

APPENDIX III—This is numbered TM 9-2350-200-20P. It's published as a separate part of TM 9-2350-200-20. This is the repair parts and special tool list for 2nd echelon. This takes the place of Section II of type 7 SNL's.



HERE'S HOW THE APPENDICES FOR THE DIFFERENT ECHELONS OF MAINTENANCE STACK UP—

TM 9-2350-200-10

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL
(1st ECHELON)

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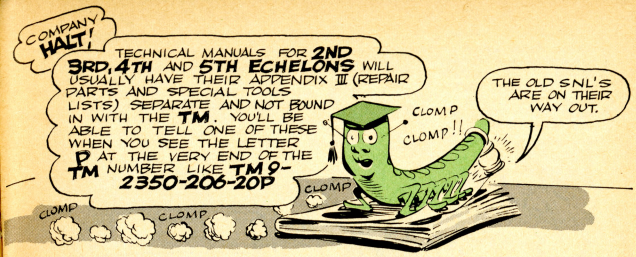


TM 9-2350-200-34

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

FIELD
(3rd AND 4th ECHELONS)

APPENDIX I—References

(Same type of info that you find in -10 Appendix, but your -34 will relate to field maintenance.)

APPENDIX II—tells you that the Maintenance Allocation Chart appears in Appendix II of TM 9-2350-200-20.

TM 9-2350-200-34P

APPENDIX III—Field Maintenance Repair Parts Allowances. This is published as a separate Appendix of TM 9-2350-200-34 and will have number TM 9-2350-200-34P.

TM 9-2350-200-50

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DEPOT
(5th ECHELON)

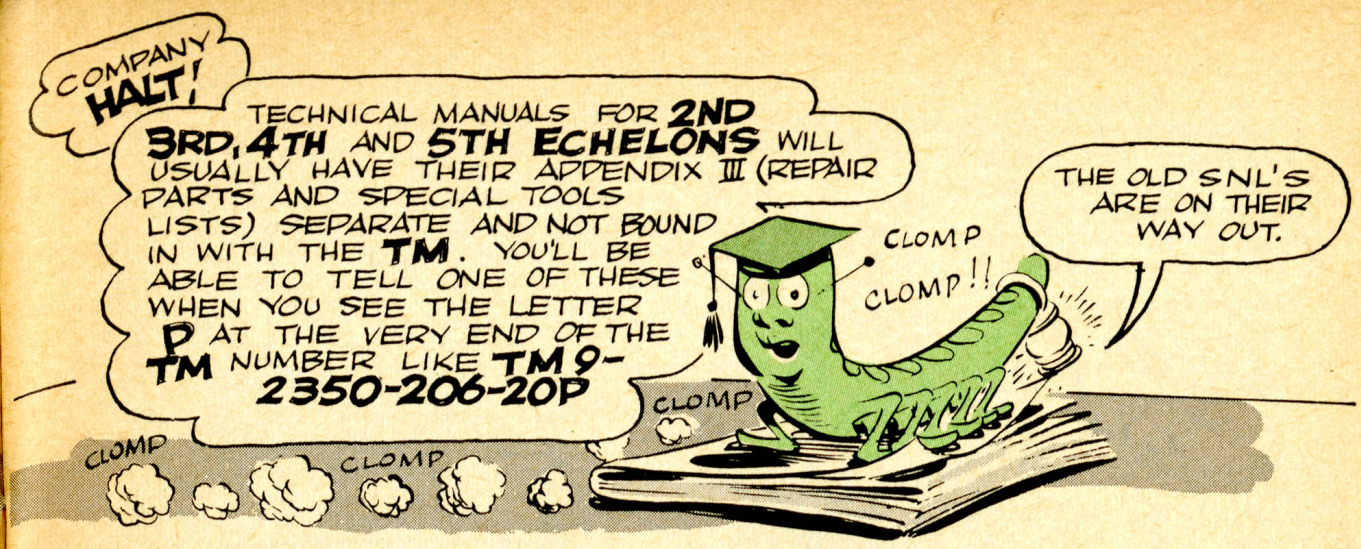
APPENDIX I—References

(Same type of info that you find in -10 Appendix but your -50 will relate to depot maintenance.)

APPENDIX II—tells you that the Maintenance Allocation Chart appears in Appendix II of TM 9-2350-200-20.

TM 9-2350-200-50P

APPENDIX III—Field and Depot Maintenance repair parts allowances are found in TM 9-2350-200-50P.



ECHELONS OF MAINTENANCE STACK UP—

TM 9-2350-200-34
DEPARTMENT OF THE ARMY TECHNICAL MANUAL

FIELD
(3rd AND 4th ECHELONS)

APPENDIX I—References
(Same type of info that you find in -10 Appendix, but your -34 will relate to field maintenance.)

APPENDIX II—tells you that the Maintenance Allocation Chart appears in Appendix II of TM 9-2350-200-20.

TM 9-2350-200-50
DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DEPOT
(5th ECHELON)

APPENDIX I—References
(Same type of info that you find in -10 Appendix but your -50 will relate to depot maintenance.)

APPENDIX II—tells you that the Maintenance Allocation Chart appears in Appendix II of TM 9-2350-200-20.

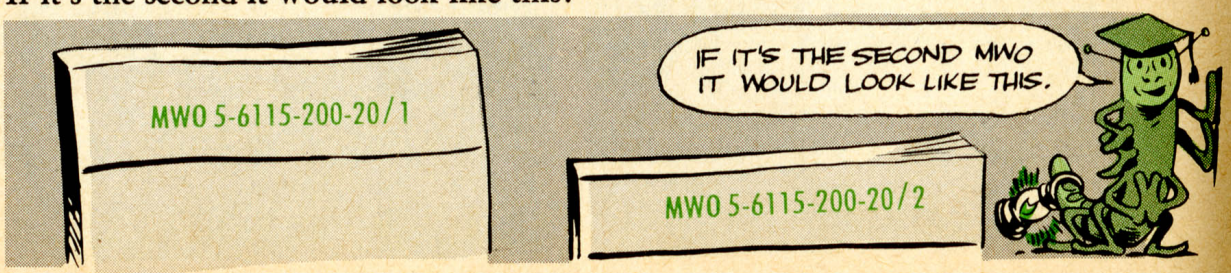
TM 9-2350-200-34P

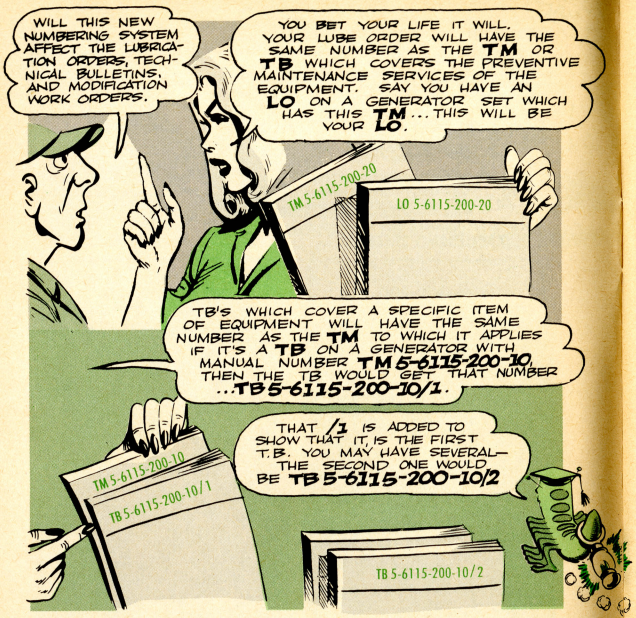
APPENDIX III—Field Maintenance Repair Parts Allowances. This is published as a separate Appendix of TM 9-2350-200-34 and will have number TM 9-2350-200-34P.

TM 9-2350-200-50P

APPENDIX III—Field and Depot Maintenance repair parts allowances are found in TM 9-2350-200-50P.

The Modification Work Orders will have numbers that look like the TM, TB, and LO numbers. If you have a modification to be made on a generator which is covered by TM 5-6115-200-20, then the number MWO 5-6115-200-20/1 would be given if it's the first MWO on this generator to be performed at 2nd echelon. If it's the second it would look like this:





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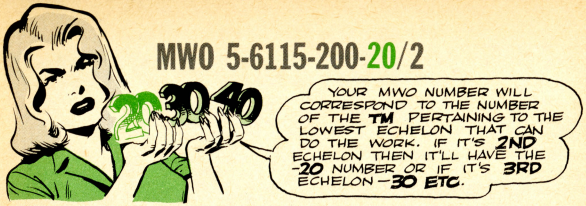
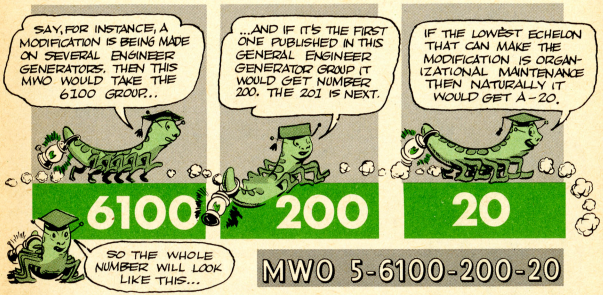
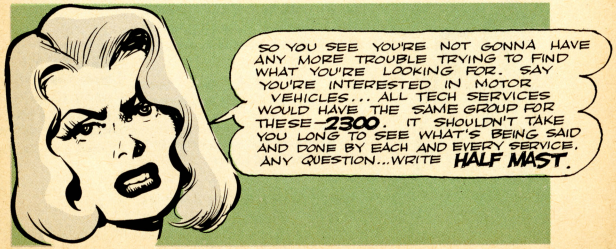
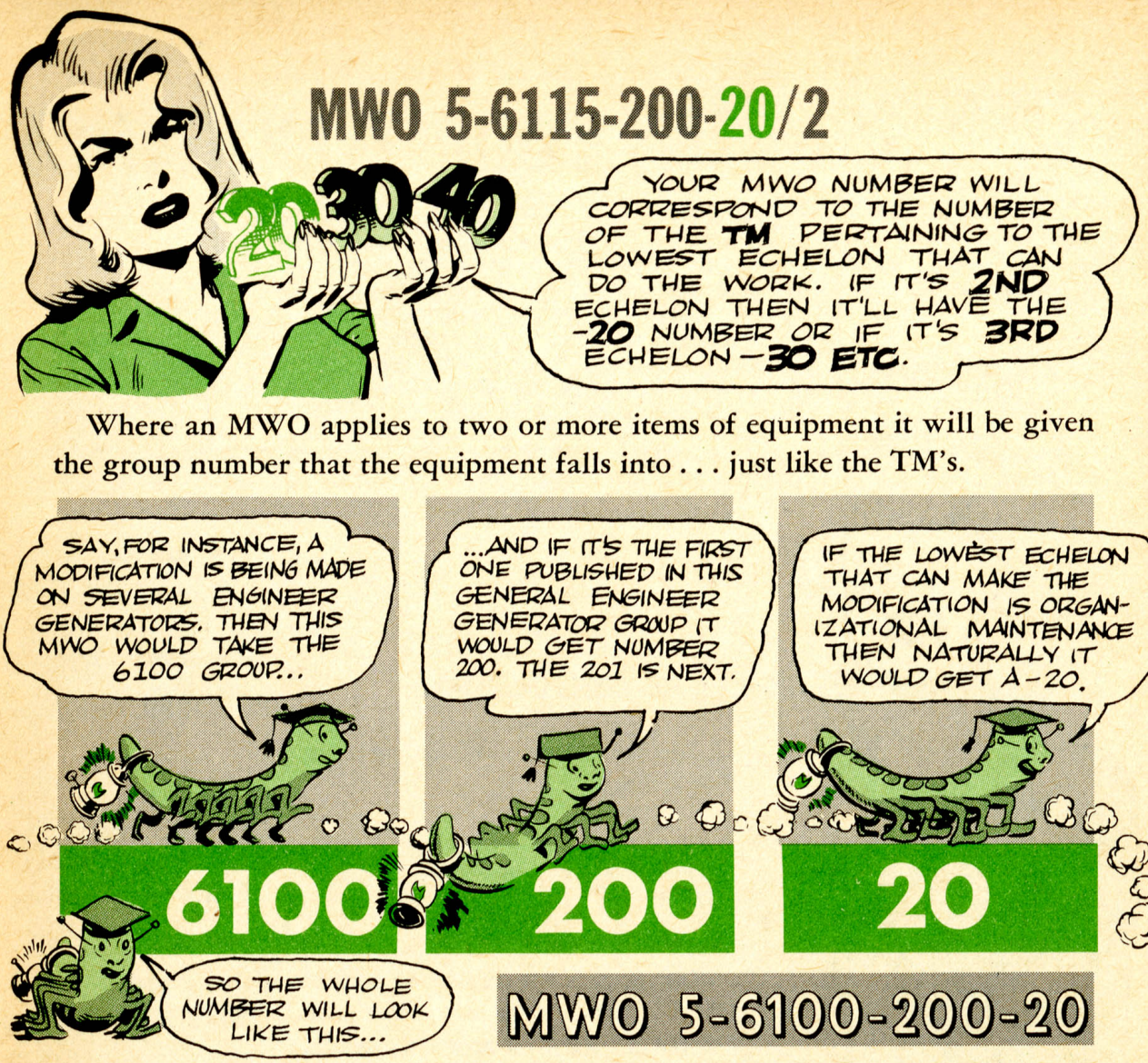


Where an MWO applies to two or more items of equipment it will be given the group number that the equipment falls into . . . just like the TM's.



Now this same principle applies to your TB's. If they fall into a group, but no particular class, then they'll get a group number, plus your two zeros, plus a numerical sequence number, plus your echelon. So—it'll end up looking like this —TB 5-6100-200-20.





Where an MWO applies to two or more items of equipment it will be given the group number that the equipment falls into . . . just like the TM's.

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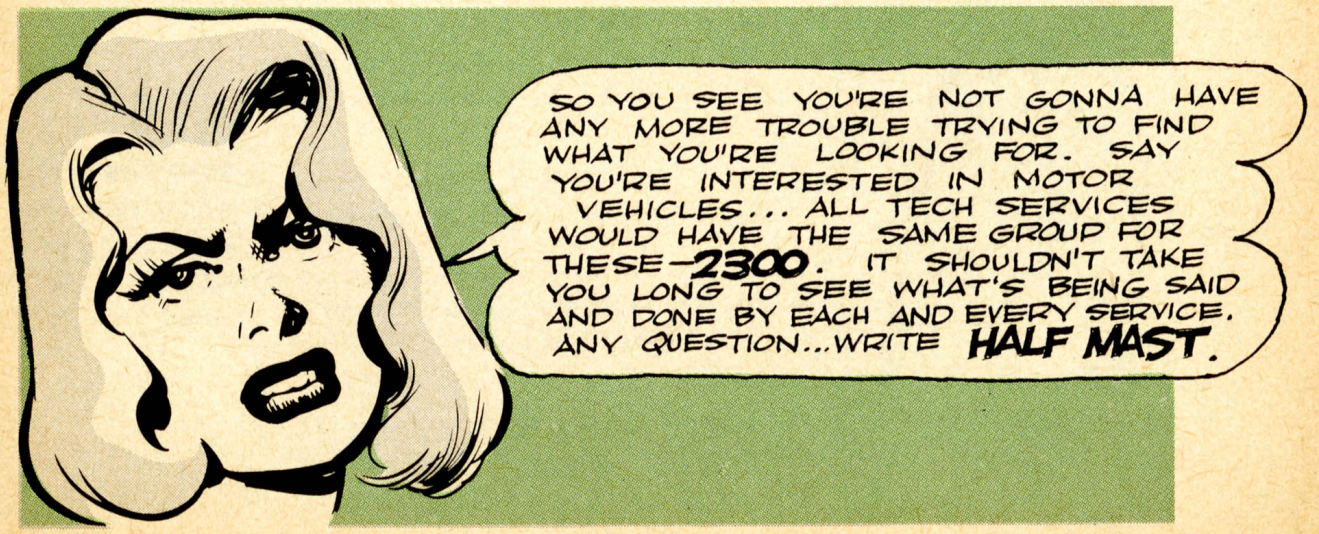
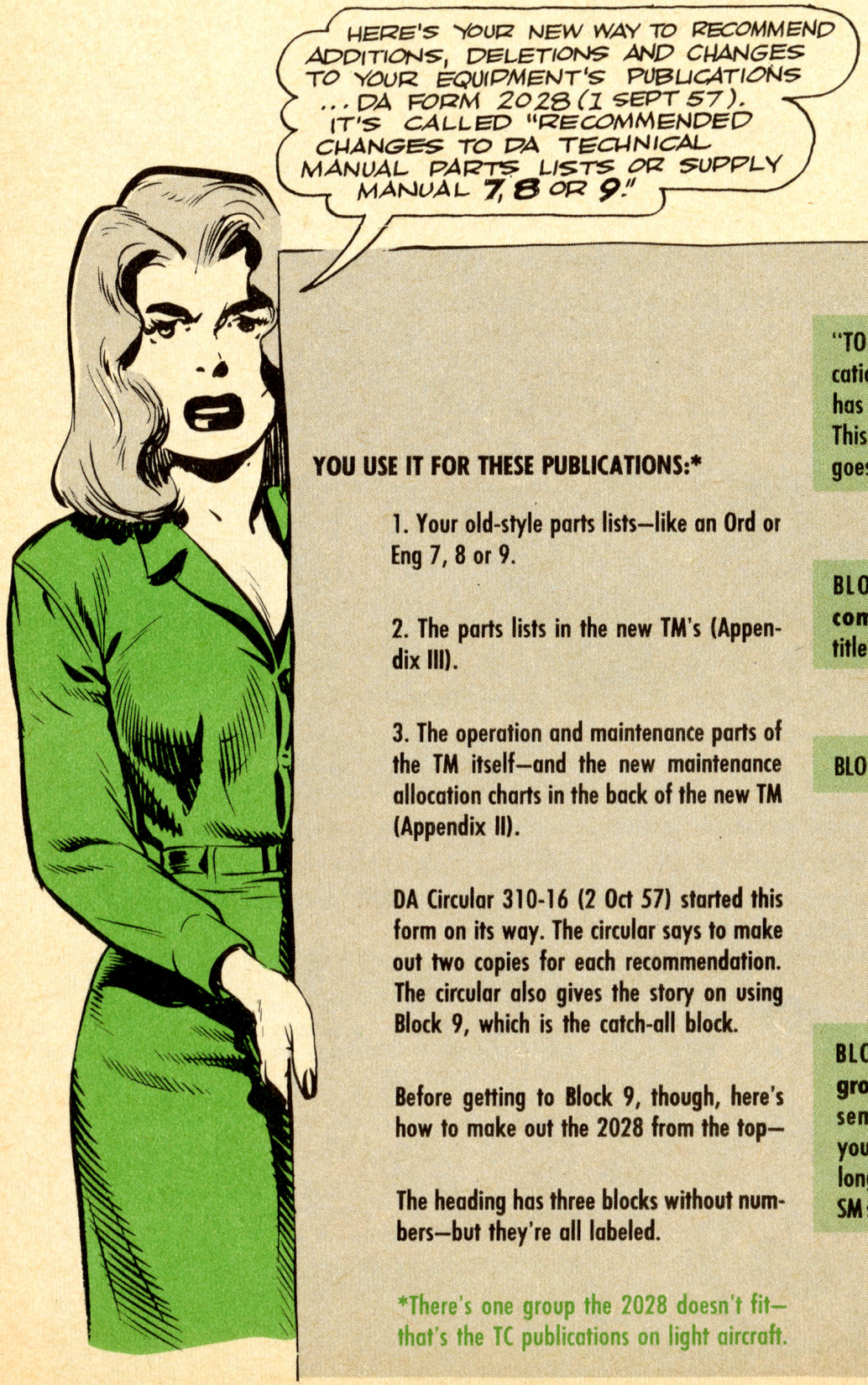


Use DA Form 2028 to . . .

KEEP YOUR PUBLICATIONS



YOU USE IT FOR THESE PUBLICATIONS:*

1. Your old-style parts lists—like an Ord or Eng 7, 8 or 9.

2. The parts lists in the new TM's (Appendix III).

3. The operation and maintenance parts of the TM itself—and the new maintenance allocation charts in the back of the new TM (Appendix II).

DA Circular 310-16 (2 Oct 57) started this form on its way. The circular says to make out two copies for each recommendation. The circular also gives the story on using Block 9, which is the catch-all block.

Before getting to Block 9, though, here's how to make out the 2028 from the top—

The heading has three blocks without numbers—but they're all labeled.

*There's one group the 2028 doesn't fit—that's the TC publications on light aircraft.

"TO" BLOCK—Each publication in its introduction has an address to write to. This is the address that goes here.

BLOCK 1—Give the **complete** publication title.

BLOCK 2—Which page(s)?

BLOCK 4—**Functional group** means which assembly group the item you're talking about belongs to . . . or which TM or SM section it's listed under.

Use DA Form 2028 to . . .

KEEP YOUR PUBLICATIONS STRAIGHT

HERE'S YOUR NEW WAY TO RECOMMEND ADDITIONS, DELETIONS AND CHANGES TO YOUR EQUIPMENT'S PUBLICATIONS ... DA FORM 2028 (1 SEPT 57). IT'S CALLED "RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS OR SUPPLY MANUAL 7, 8 OR 9."

YOU USE IT FOR THESE PUBLICATIONS:*

1. Your old-style parts lists—like an Ord or Eng 7, 8 or 9.

2. The parts lists in the new TM's (Appendix III).

3. The operation and maintenance parts of the TM itself—and the new maintenance allocation charts in the back of the new TM (Appendix II).

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BLOCK 2— Which page(s)?

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RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS OR SUPPLY MANUAL 7, 8, OR 9
(Forward in duplicate to addresses listed in manual)

DATE: 1 Jan 58

TO: Chief of Ordnance, Dept. of the Army
Washington 25, D.C.
ATTN: ORDFM-Pub

FROM: (Activity and location)
Z Tk Co, 5th Bn
9th Armd Cav
Sprechenupastorm Kaserne
Apo 3001½

1. COMPLETE TM OR SM NUMBER AND DATE: Ord 7 SNL G-254 (Jan 55)
2. PAGE NOS.: 34
3. EQUIPMENT
a. END ITEM STOCK NUMBER: FSN 2350-736-4202
4. FUNCTIONAL GROUP (Enter group(s), number(s), or title(s), under which item appears): 0304.1 - Air Cleaners
b. BRIEF DESCRIPTION: Tank, M48

5. ACTION RECOMMENDED

CHECK ONE	a. STOCK NO.	b. ALLOWANCE FACTOR	c. SOURCE, MAINTENANCE, AND RECOVERABILITY CODE (Where applicable)
ADD 1 X	FROM	FROM 0	FROM
DELETE 2	TO	TO .6	TO 9 -0 - x (expendable symbol)
CHANGE 3			

6. IDENTIFICATION OF REPAIR PART
a. STOCK NO. (FSC or Technical Svc) (If available); OTHERWISE LIST OFFER'S NAME AND PART NUMBER: 2940-563-4463
b. BRIEF DESCRIPTION: Gasket

7. DEMANDS FOR ITEM (Exact quantity of demands for item in each specific block for the number of days indicated)
a. 90 DAYS: 7
b. 60 DAYS: 13
c. 180 DAYS: 24

8. TOTAL NUMBER OF MAJOR ITEMS SUPPORTED TO WHICH ITEM APPLIES: 17

9. JUSTIFICATION, REMARKS OR OTHER RECOMMENDATIONS (Brief and concise justification for recommended action. Any remarks or recommendations not covered, such as errors or illustrations, changes to maintenance operations covered in technical manuals and recommendations for changes to maintenance allocation charts)

1. Absence of subject gasket from Ord 7 prevents ordering item as required.
2. This gasket can be installed by organizational personnel without difficulty.
3. Recommend para 226a, TM 9-7012 (Aug 54) include reference to replacing gasket.

TYPED NAME, GRADE OR TITLE: John E. Small, Sfc
SIGNATURE: John E. Small

1 Complete items 3b and c, 6, 7, 8, & 9.
2 Complete items 6, 7, 8, & 9.
3 Complete items 3a, b, or c, as applicable, and 6, 7, 8, & 9.

DA FORM 1 SEP 57 2028

"DATE" BLOCK—Be sure it's written military style, such as 1 Jan 58.

"FROM" BLOCK—**Activity** is your unit name and **location** means your post, APO number or town.

BLOCK 3—**Equipment.**
3a—The stock number of the major item of equipment. If you're talking about a gasket in an M48 tank, the tank's stock number would go here. If the part you're talking about is used on more than one major item—and both major items are mentioned in the TM or SM you're writing about—give the stock numbers of both major items in this box. Just separate them by a slash.

3b—**Brief** description means you don't have to copy everything—just enough to make sure there's no mistaking which piece of equipment you're talking about . . . like Tank, M48—or M48A1—or M48A2. (You could add **air cleaner,** but Blocks 4 and 6a tie it down already.)

STRAIGHT

RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS OR SUPPLY MANUAL 7, 8, OR 9
(Forward in duplicate to addressee listed in manual)

DATE: 1 Jan 58

TO:
Chief of Ordnance, Dept. of the Army
Washington 25, D.C.
ATTN: ORDFM-Pub

FROM: *(Activity and location)*
Z Tk Co, 5th Bn
9th Armd Cav
Sprechenupastorm Kaserne
Apo 3001½

1. COMPLETE TM OR SM NUMBER AND DATE: Ord 7 SNL G-254 (Jan 55)
2. PAGE NOS.: 34
3. EQUIPMENT
a. END ITEM STOCK NUMBER: FSN 2350-736-4202
4. FUNCTIONAL GROUP *(Enter group(s), number(s), or title(s), under which item appears)*: 0304.1 - Air Cleaners
b. BRIEF DESCRIPTION: Tank, M48

5. ACTION RECOMMENDED

CHECK ONE	a. STOCK NO.	b. ALLOWANCE FACTOR	c. SOURCE, MAINTENANCE, AND RECOVERABILITY CODE *(Where applicable)*
ADD[1] X	FROM	FROM 0	FROM
DELETE[2]	TO	TO .6	TO 9 -0 - x (expendable symbol)
CHANGE[3]			

6. IDENTIFICATION OF REPAIR PART

a. STOCK NO. *(FSC or Technical Svc) (If available); OTHERWISE LIST MFGR'S NAME AND PART NUMBER*	b. BRIEF DESCRIPTION
2940-563-4463	Gasket

7. DEMANDS FOR ITEM *(Exact quantity of demands for item in each specific block for the number of days indicated)*

a. 30 DAYS	b. 90 DAYS	c. 180 DAYS
7	13	24

8. TOTAL NUMBER OF MAJOR ITEMS SUPPORTED TO WHICH ITEM APPLIES: 17

9. JUSTIFICATION, REMARKS OR OTHER RECOMMENDATIONS *(Brief and concise justification for recommended action. Any remarks or recommendations not covered, such as errors on illustrations, changes to maintenance operations covered in technical manuals and recommendations for changes to maintenance allocation charts)*

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2. This gasket can be installed by organizational personnel without difficulty.

3. Recommend para 226a, TM 9-7012 (Aug 54) include reference to replacing gasket.

TYPED NAME, GRADE OR TITLE: John E. Small, Sfc
SIGNATURE: John E. Small

[1] Complete Items 5b and c, 6, 7, 8, & 9.
[2] Complete Items 6, 7, 8, & 9.
[3] Complete Items 5a, b, or c, as applicable, and 6, 7, 8, & 9.

DA FORM 1 SEP 57 2028

U. S. GOVERNMENT PRINTING OFFICE 1957 O 43888

"DATE" BLOCK—Be sure it's written military style, such as 1 Jan 58.

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BLOCK 5—Action Recommended. Check what you want done—add, delete or change—and read the **footnotes** at the bottom of the form. You got to understand your **abc's** here.

5a—Use this only when you're talking about a wrong stock number.

BLOCK 6—Identification of Repair Part. Here's where you get down to the part you're interested in.

6a—Use a Federal Stock Number when you can. If not, a tech service stock number or manufacturer's part number is OK.

BLOCK 7—Demands for Item

Blocks 7a, 7b and 7c don't all have to be filled in unless local SOP says so. Remember that **demands** includes **all** the requests for an item, whether you had the item stocked or had to put it on due-in.

BLOCK 9—Read it carefully. This is the catch-all space that covers:

1. Justification
2. Added remarks or recommendations dealing with the item listed in Block 6. For instance—does this change, addition or deletion have anything to do with:

a) a TM illustration?

b) the maintenance and operation of the equipment?

c) the echelon installing or servicing it?

RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS OR SUPPLY MANUAL 7, 8, OR 9
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2. PAGE NOS.: 34
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4. FUNCTIONAL GROUP *(Enter group(s), number(s), or title(s), under which item appears)*: 0304.1 - Air Cleaners
b. BRIEF DESCRIPTION: Tank, M48

5. ACTION RECOMMENDED

CHECK ONE	a. STOCK NO.	b. ALLOWANCE FACTOR	c. SOURCE, MAINTENANCE, AND RECOVERABILITY CODE *(Where applicable)*
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DELETE [2]	TO	TO .6	TO 9 -0 - x (expendable symbol)
CHANGE [3]			

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a. STOCK NO. *(FSC or Technical Svc) (If available); OTHERWISE LIST MFGR'S NAME AND PART NUMBER*: 2940-563-4463
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SIGNATURE: John E. Small

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[3] Complete Items 5a, b, or c, as applicable, and 6, 7, 8, & 9.

DA FORM 1 SEP 57 2028

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BLOCK 8—How many of the major items described in Block 3 you have on hand.

BLOCK 5—Action Recommended. Check what you want done—add, delete or change—and read the **footnotes** at the bottom of the form. You got to understand your **abc's** here.

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RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS OR SUPPLY MANUAL 7, 8, OR 9
(Forward in duplicate to addressee listed in manual)

DATE: 1 Jan 58

TO:
Chief of Ordnance, Dept. of the Army
Washington 25, D.C.
ATTN: ORDFM-Pub

FROM: *(Activity and location)*
Z Tk Co, 5th Bn
9th Armd Cav
Sprechenupastorm Kaserne
Apo 3001½

1. COMPLETE TM OR SM NUMBER AND DATE: Ord 7 SNL G-254 (Jan 55)

2. PAGE NOS.: 34

3. EQUIPMENT
a. END ITEM STOCK NUMBER: FSN 2350-736-4202
b. BRIEF DESCRIPTION: Tank, M48

4. FUNCTIONAL GROUP *(Enter group(s), number(s), or title(s), under which item appears)*: 0304.1 - Air Cleaners

5. ACTION RECOMMENDED

CHECK ONE		a. STOCK NO.	b. ALLOWANCE FACTOR	c. SOURCE, MAINTENANCE, AND RECOVERABILITY CODE *(Where applicable)*
ADD[1]	X	FROM	FROM 0	FROM
DELETE[2]		TO	TO .6	TO 9 -0 - x (expendable symbol)
CHANGE[3]				

6. IDENTIFICATION OF REPAIR PART
a. STOCK NO. *(FSC or Technical Svc) (If available)*; OTHERWISE LIST MFGR'S NAME AND PART NUMBER: 2940-563-4463
b. BRIEF DESCRIPTION: Gasket

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SIGNATURE: John E. Small

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DA FORM 1 SEP 57 2028

U. S. GOVERNMENT PRINTING OFFICE 1957 O

BLOCK 9—Read it carefully. This is the catch-all space that covers:

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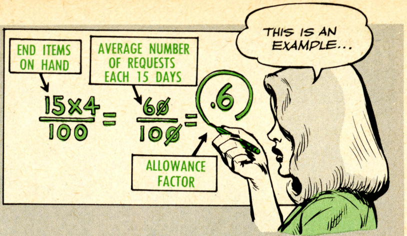
a) a TM illustration?

b) the maintenance and operation of the equipment?

c) the echelon installing or servicing it?

BLOCK 8—How many of the major items described in Block 3 you have on hand.

5b—This is the decimal point number in your allowance columns. To add or change the factor, just use the formula in your manual. ENG 7's, 8's and 9's don't use decimal **factors** in their allowance columns—you explain all allowance suggestions in Block 9.



5c—You usually find these three codes in the reference columns of your manual. They mean this—

1. **Source**—An abbreviation or code number for the tech service supplying the item—3 (Chemical Corps), 5 (Engineers), 8 (Medical), 9 (Ordnance), 10 (Quartermaster), 11 (Signal) and 55 (Transportation).

2. **Maintenance**—A letter of the alphabet standing for the maintenance echelon using the item or allowed to order the item—0=organizational (1st & 2nd echelon); F=field (3rd echelon); H=heavy field (4th echelon); D=Depot (5th echelon).

3. **Recoverability**—A letter or a combination of a letter and number explaining how the item is supposed to be recovered, so it can be used again. Maybe it's supposed to be fabricated locally, repaired at field or depot level, replaced through supply channels as required, etc. You can also suggest changing the item from a nonexpendable (NX) to an expendable (X) one.

6b—Describe the item—but make it brief. Just the name of the item, without dimensions, is usually enough.

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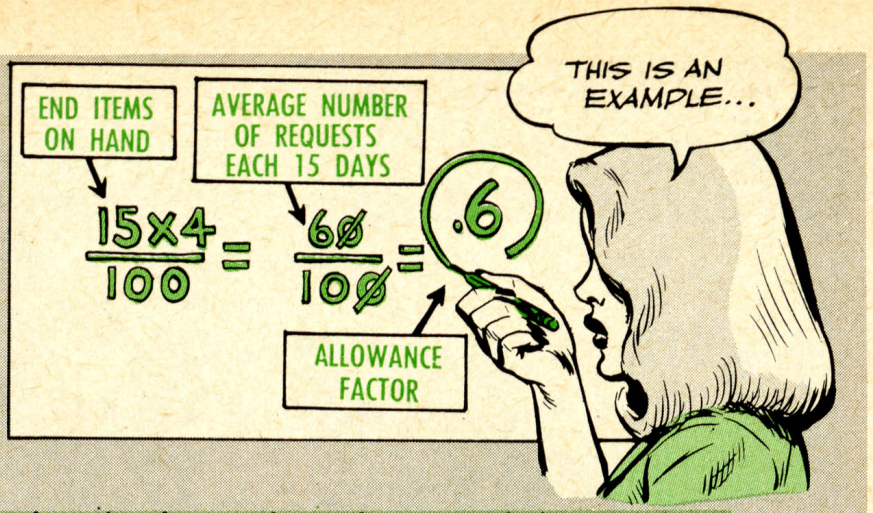

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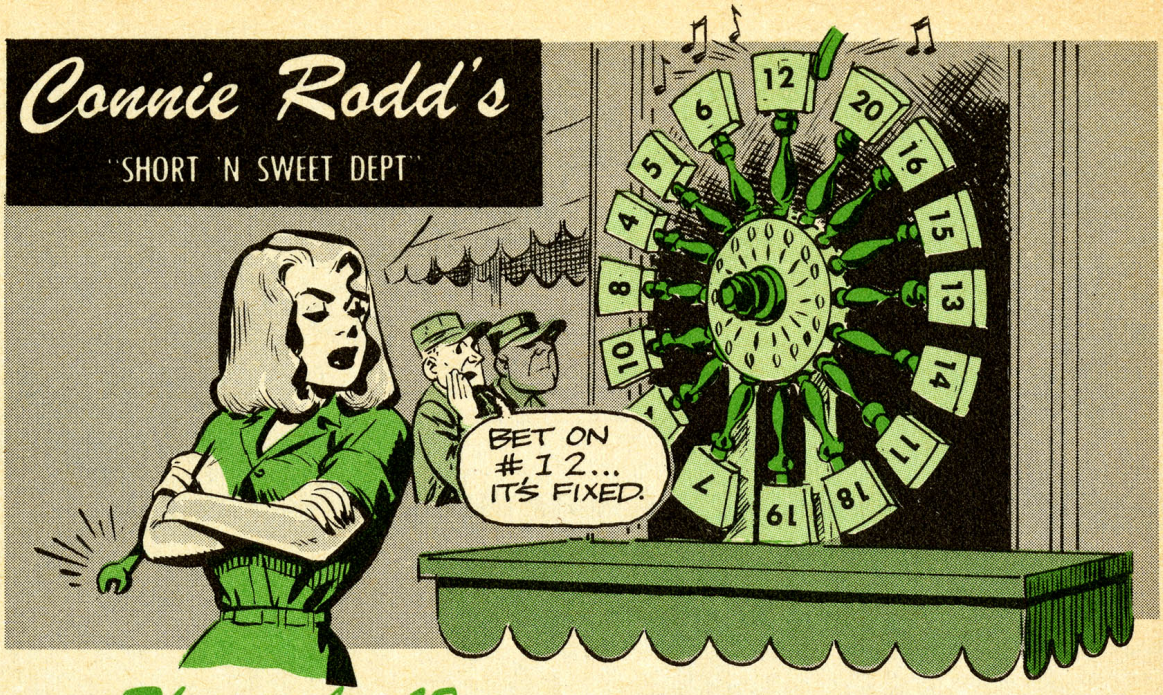
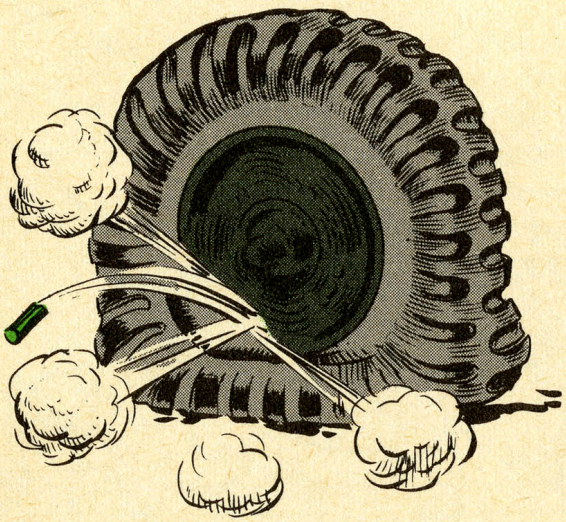


The number 12

The number **12** is it, when it comes to the correct air pressure in your M274 Mule's tires.

Puttin' less than 12-PSI in these tires is like putting too little in a poker pot—you're just asking for trouble.



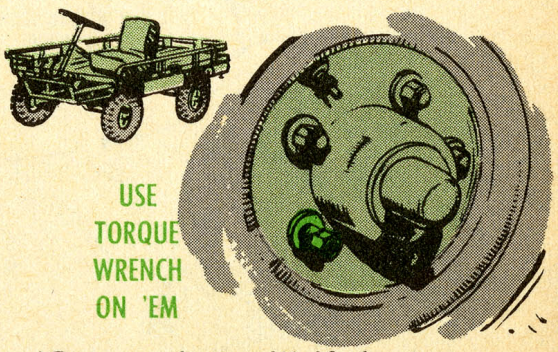
When the air pressure is below this figure, the wheels may turn inside the tires. This happens because the wheels are still turnin' and the tires are more or less standing still.

The first thing that gets damaged is the valve stem and then the tube'll go kaput.

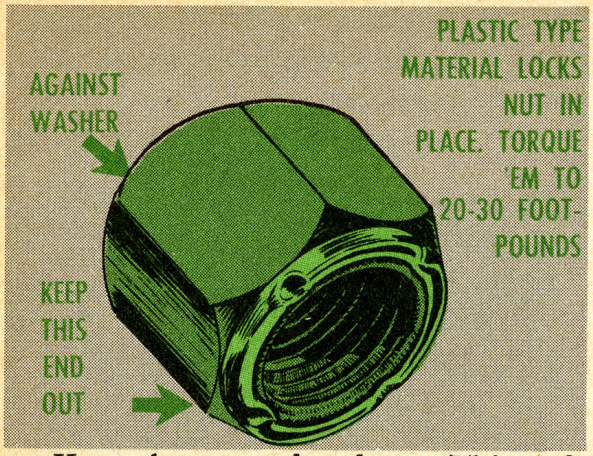
Remember now . . . no less than 12-PSI at any time.

Nuttin' to it

There's nothing to putting the wheels on your M274 Mule, but the question is, will they stay on?



'Course, they will if they're put on the right way, but some Joes are slipping the wheel nuts back on with the tapered end in toward the wheel. This is snafu on the Mule's wheels, so don't do it. They go on different from what most other vehicles' wheel nuts do.

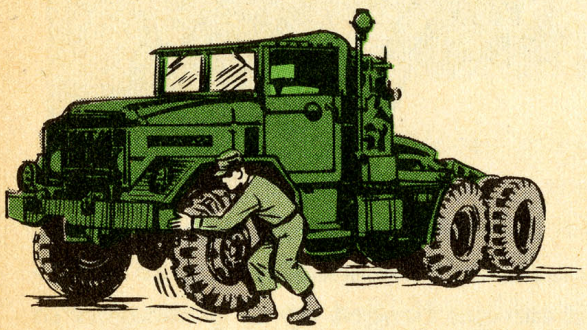


Keep the tapered end **out**. This end has an elastic type material (looks like leather) that locks 'em in place. With the tapered end out, the flat end'll fit snug up against the washer.

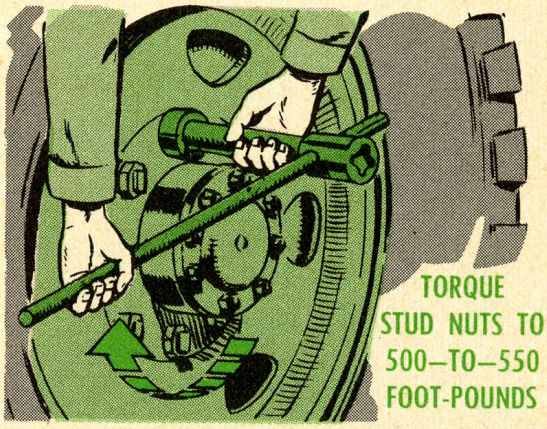
When you're in your shop area, always use the torque wrench to put 'em on. Torque 'em up between 20-30 foot-pounds. When you're out in the boondocks and you're using the hand crank, don't use all that muscle strength to draw 'em up—just enough to get 'em good'n snug.

Wobbly wheel woes

Word has it that G792-series 10-ton truck drivers are having one heck of a time keeping the front-wheel stud nuts tight. If you fall into this group, I've got news for you.



Those stud nuts need a 500-to-550 foot-pound torque to keep the front wheels from wobbling. Your OVM stud-nut wrench won't tell you when you have this tight torque, but it'll do the trick when you're away from your home base.



To change a wheel on the road, draw the stud nuts up as tight as you can. Then, when you get back to your unit, find an outfit that rates the Tool Set, Organizational Maintenance, 2nd Echelon, Set No. 2 Supplemental, and get the following torque wrench: Wrench, Torque; Rigid frame, L-hdl, dial indicating, w/visual indicating mech, ¾ in sq male drive, cap 0-600 ft-lb. This wrench has FSN 5120-221-7983.

With this wrench, you can torque those stud nuts up to the 500-to-550 foot-pounds they need.

Treat 'em gentle

Your M48A2 tank transmission sending units, that is. Seems some guys are makin' like acrobats while workin' around the transmissions, causing damage to the units.

Better you don't grab or stand on them as they are just delicate enough

so they'll break off, or the wires'll get jerked out of their sockets.

Using 'em for hand or foot holds is no-go.

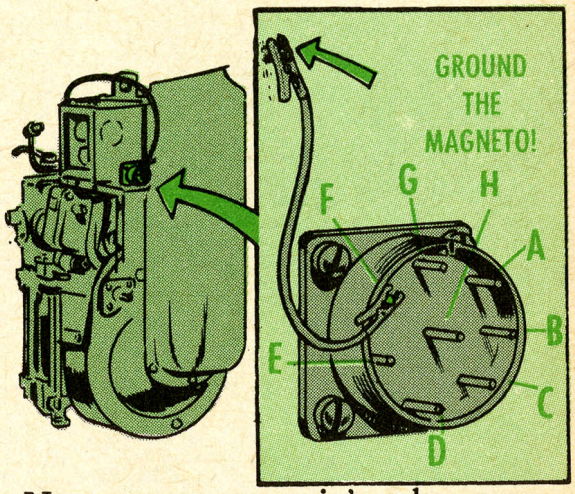
Hot character

He's not around much any more.

Wha' hoppen? He was pulling a check on a Little Joe that had come up with gasoline in the crankcase.

Goód check, too. Took the unit out of the tank, took the carburetor off to check for a leaking float valve, and took the spark plug out to check for possible hydrostatic lock.

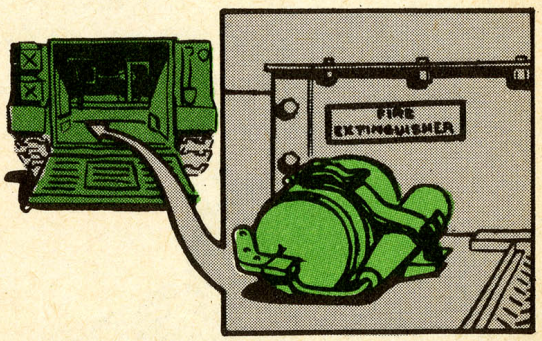
Only, he **forgot to ground the magneto**, and when a magneto lead is open, the mag is hot. So's this Joe, now, 'cause when he pulled the engine through, the hot mag fired, and the spark plug cable was too close to the cylinder port. The flame shot out and popped him on the face and chest.



Now you, not wantin' to become a statistic of this type, are always careful to ground the magneto on any engine you take out. Right?

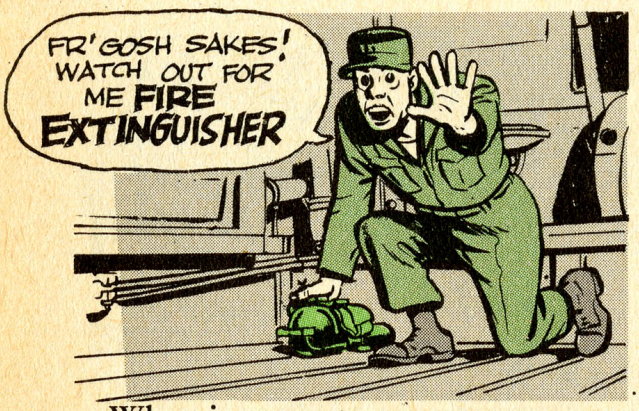
Get out of the bush

The old saying, "a bird in the hand is worth two in the bush," goes double for the fire extinguishers in your M59 armored personnel carrier—a fire extinguisher in working shape is worth two (or three, or four) that don't.



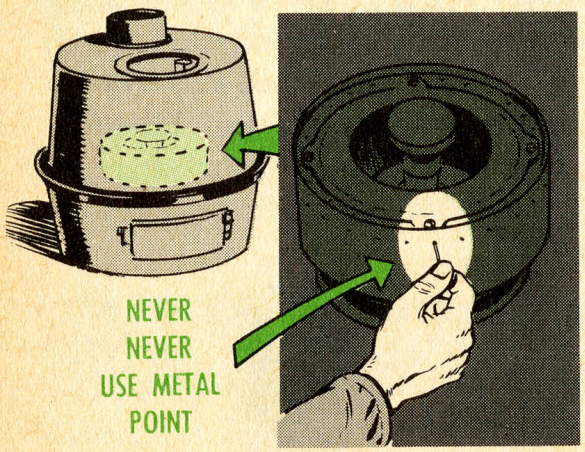
That M59 fire extinguisher is lying on the floor in back of the driver's seat—it can get banged up by passengers or by cargo shoved back in there. To keep this from happening, you drivers ought

to do lots of careful searching into how that cargo's loaded. If need be, stand over the job just to make sure nothing gets near the extinguisher.



When it comes to your passengers, a couple of words of caution telling them to keep those clodhoppers off the extinguisher may do lots of good. After all, nobody's going to bang up that important life-saver intentionally.

Pot hole picker

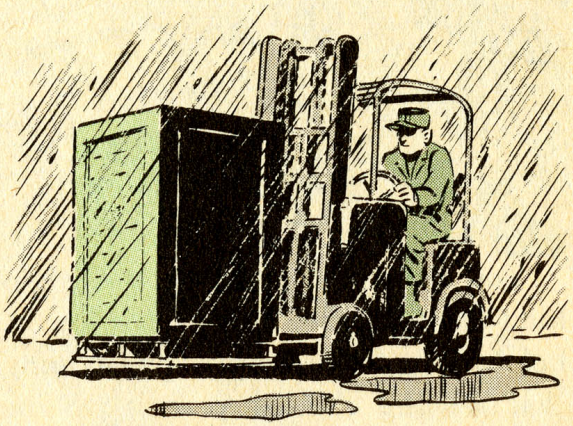


Got a toothpick handy? It can be used for many things beside clearing your cavities. Like poking soot, carbon and rust from the small holes in the burner pot assembly of your M1941 oil burner tent stove. Actually, any small pointed piece of wood will do the job.

The big thing to bear in mind is: Never, never use a metal point! 'Cause that might enlarge those holes or change their direction—which will lead to trouble later on.

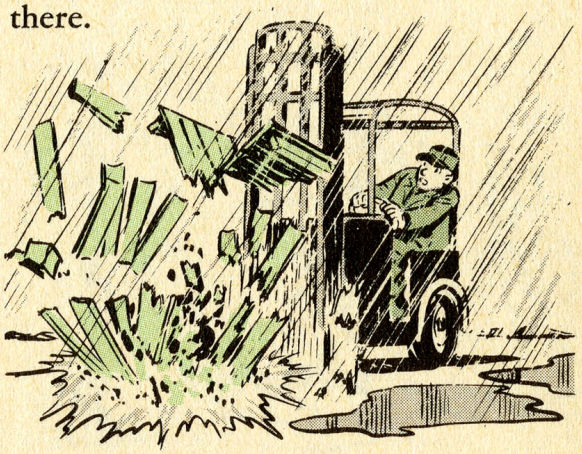
For more info on cleaning see TM 10-725.

Trouble in the woodpile



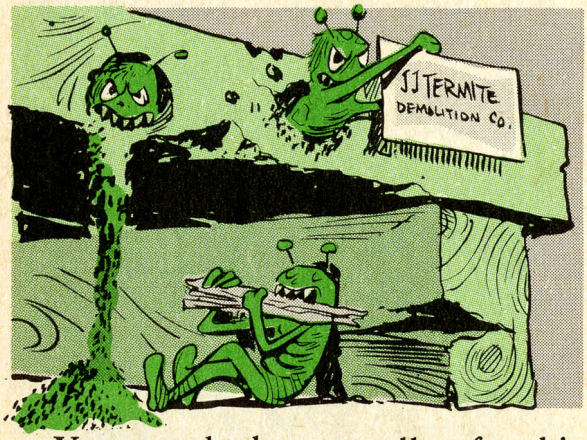
It happened one rainy day.

The forklift slipped its forks under a pallet piled high with fire control equipment. Those optics were needed up forward — quick. They never got there.



That pallet crumbled and collapsed and dumped broken glass from here to Christmas soon as the lift started lifting. The reason? Termites . . . and . . . dry rot . . . the fatal enemy to anything made from untreated wood.

You have to watch for 'em. Termites leave a handy calling card—a pile of fresh sawdust. A sure giveaway. Dry rot is tougher to spot, though, and calls for a closer look.



You can check your pallets for this kind of misery quick enough with the help of a knife or ice pick or anything that's strong and sharp. Just jab the wood a few times. If your tool goes in nice and easy — 'stead of hitting heavy resistance—then you know you've got sick wood.

Fungi and mold (usually found in damp spots) are other big enemies of untreated wood and call for frequent checks. When you find 'em—and they haven't done too much damage—try the scrape and dry method. Then put some wood preservative on so's the trouble doesn't come along again.

Watch for 'em all, because any one of them can ruin a pallet or skid pronto and leave the load on the ground or all over the place.

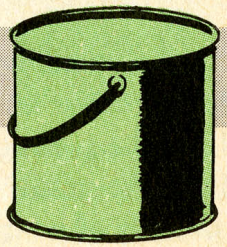
Moral of the story:

Preventive Maintenance is the best medicine for wooden pallets. (As well as just about anything else in this man's Army!) The Engineers stock a prescription that should cure the trouble. It goes under the label of Wood Preservative, Pentachlorophenol (honest) Mixture.

It dries within an hour after you spray or brush it on. What size can you handle?

1-GAL CAN,
FSN 8030-222-0503.

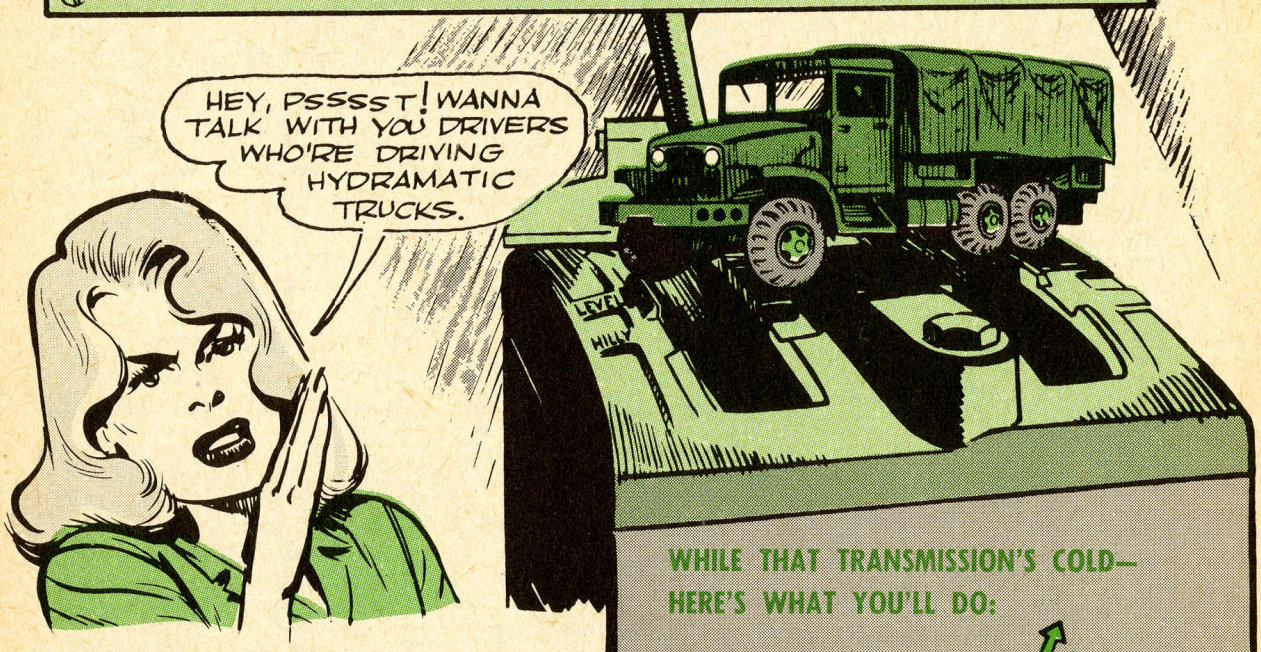
5-GAL CAN,
FSN 8030-222-0504.



TM 5-632 spreads the word on other protection for untreated wood.

You Drivers Need Know-How On

YOUR HYDRA-MATIC TRUCK TRANSMISSION



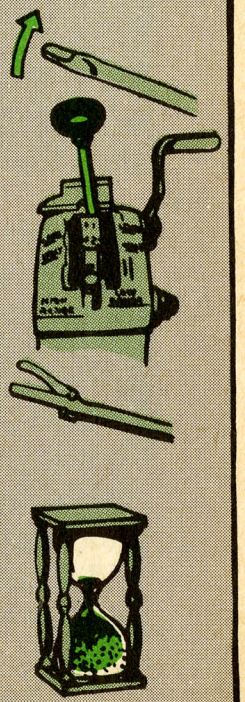
A driver owes that gear box something—it's called "know-how." Tie it in with another word—"responsibility"—and it adds up to the things your Hydra-Matic needs to keep it in the best of shape.

These are the things that Hydra-Matic is looking to you for. Doesn't take much time to do it up right—so, why not?

DAILY CHECKS

Your checks are limited to a daily thing, and it all has to do with oil. These checks are done before you drive the vehicle and after you're all done hauling.

WHILE THAT TRANSMISSION'S COLD— HERE'S WHAT YOU'LL DO:



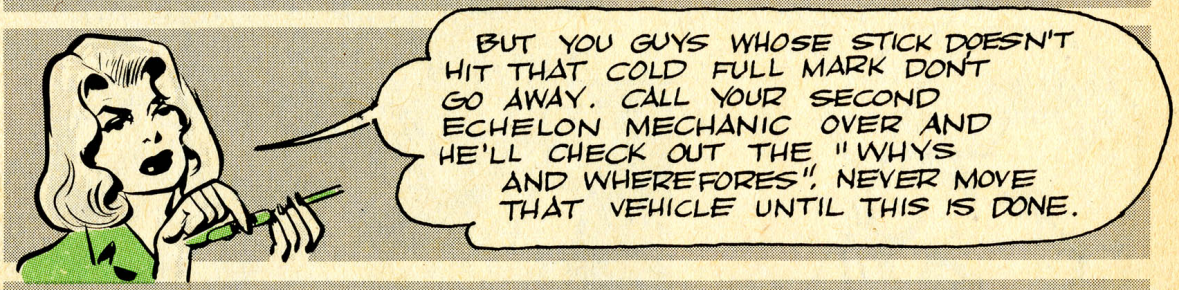
1. Place the transfer control-lever in UP ENGAGED position and the transmission control-lever in Neutral (N). When your truck's running and your transmission's in Neutral, always use the safety lock you have on that transmission shift-lever-control box. (The lock was given to you under MWO Ord G749-W34, 30 April 56, which is an Urgent MWO.) Now, start your engine and keep it idling throughout the check (375-RPM is the idle speed). Don't forget to set that handbrake.

2. Now, run your engine (at idle) for about 3 to 5 minutes.

3. Lift the floor plate from over the transmission dipstick and clean all the dirt from around the stick, so's none'll fall into that oil when you lift the stick out.

4. Take that dipstick out and wipe it dry with a **clean** rag—not the one you used to wipe the junk from around the hole. Then, put the stick back into its hole—make sure it's seated fully.

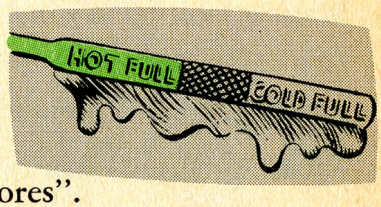
5. Take it out again and read it. The oil level should be at the COLD FULL mark line on the gage. If it is, you can put the stick back in, replace the floor plate—take off.



6. As long as that engine's running, there're a few real important safety tips you must follow.
First, never leave the cab of your vehicle while the engine's running.
Second, make sure—awful sure—that nobody is standing or passing in front of your truck—and nobody crawls underneath that truck.
Third, keep those handbrakes set at all times.
And, last, never pull out the hand throttle any further than needed to keep the engine running at idle speed—375 RPM.
You get these safety tips in TB 9-8024-1 (19 Jan 56).

AFTER OPERATION

Never do your after-operation check on that transmission unless your truck has been on a 45-minute or more run—if you do, you won't get a true reading.



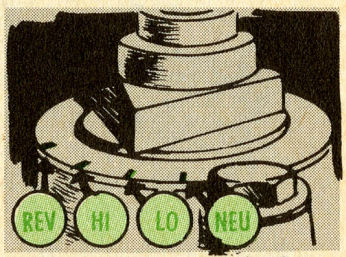
When you take your dipstick out and read it, the oil level should stand at the HOT FULL mark. If it doesn't, get that second echelon mechanic over and let him check the thing out. Again, don't move that vehicle until the mechanic learns the "whys and wherefores".

One more thing—at all times be critical of that oil. In other words, if she looks dirty or has a barnyard smell to her (something like burned cork), your mechanic wants to know about it. It means that transmission is improperly adjusted and could bust a bustle before too long.

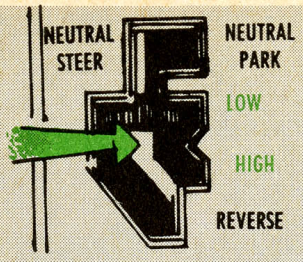
On Your M52 SP Howitzer...

SHIFT LINKAGE

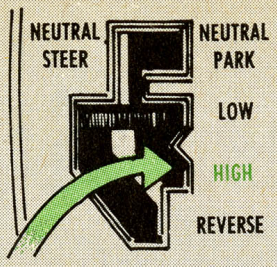
It's a tricky job and you gotta be careful, else you'll find you're adjusting the wrong rod the right way or vice-versa. You'll know when your shift linkage needs adjusting if the shift arm on the transmission won't follow the driver's shift control lever perfectly. On top of the transmission are indexes on dots, NEU, LO, HI, and REV. Every time you shift, the pointer on the transmission should hit those letters exactly. If they don't, you've got some adjusting to do.



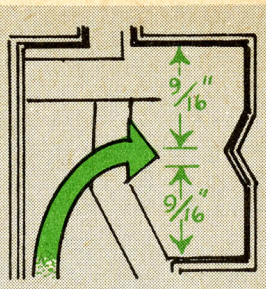
There're a few f'rinstances to keep in mind when you tackle the job. But before you start adjusting go over the linkage for bent rods, stuck bellcranks and corroded clevis pins. Any of these can cause rough shifting and so can lack of a proper lube job. If none of this is your trouble then you do need an adjusting job.



First, make all adjustments with the shifting control lever halfway between LOW and HIGH range on the shift quadrant.



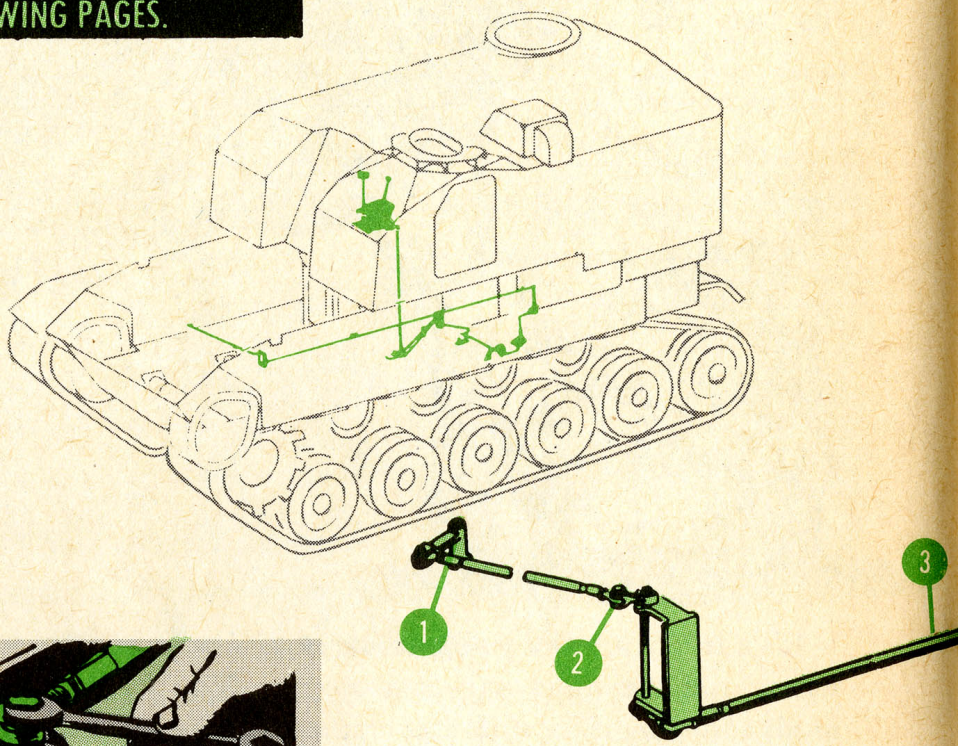
This position works out better than the "High Range" position mentioned on the quadrant.



Put the shift lever approximately 9/16 inch from the rear edge of LOW and the front edge of HIGH.

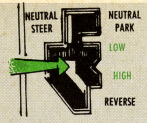
HERE'S AN OVER-ALL LOOK AT YOUR SHIFT LINKAGE SET-UP. EACH ADJUSTMENT SPOT WHICH IS NUMBERED HERE IS SPELLED OUT IN DETAIL ON THE FOLLOWING PAGES.

Now you're ready to start



1.

Disconnect the shift rod at the transmission shift valve body. This rod is the rearmost rod running from the hull left wall to the transmission, and you disconnect it at the transmission end of the rod.



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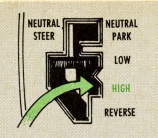

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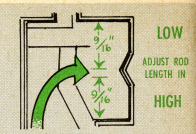

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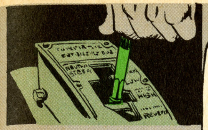
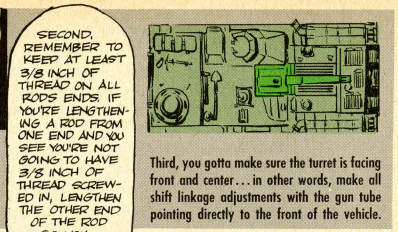


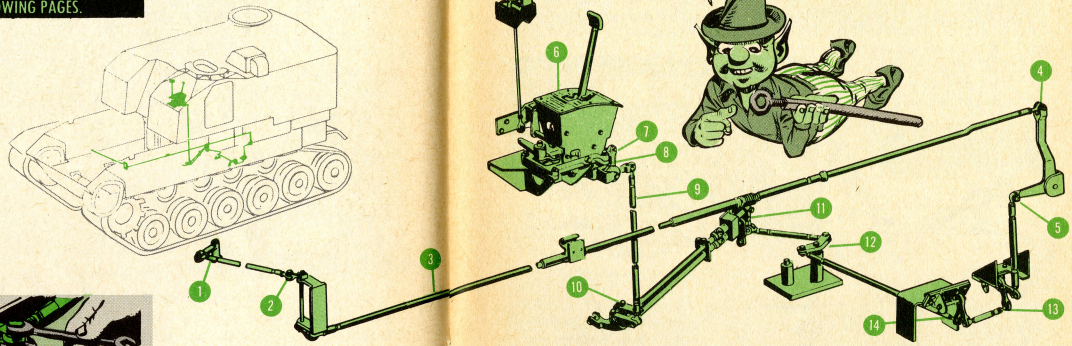
Keep checking to see that it doesn't slip from this position or have a buddy hold it in place while you make the adjustments.



Third, you gotta make sure the turret is facing front and center... in other words, make all shift linkage adjustments with the gun tube pointing directly to the front of the vehicle.

HERE'S AN OVER-ALL LOOK AT YOUR SHIFT LINKAGE SET-UP. EACH ADJUSTMENT SPOT WHICH IS NUMBERED HERE IS SPELLED OUT IN DETAIL ON THE FOLLOWING PAGES.

Now you're ready to start adjusting. Here's how:



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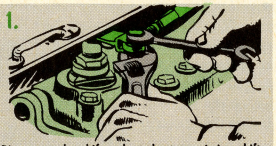

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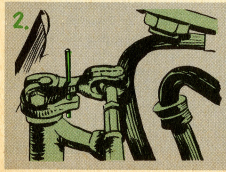
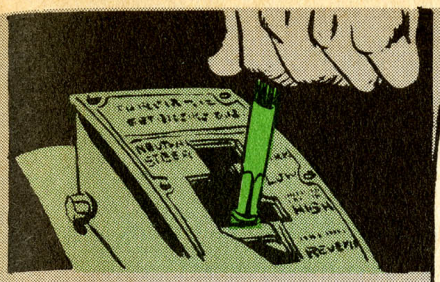
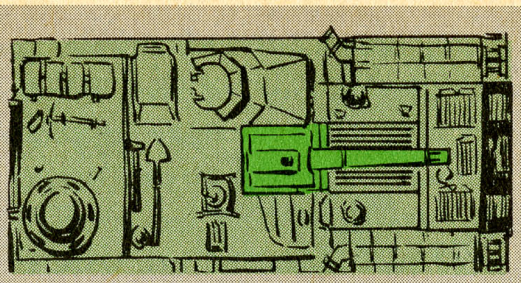


There's an alinement hole in the upper bellcrank to which this rod is attached. There's also an alinement hole in the bellcrank's support bracket. Move the hole in the bellcrank until it overlaps the hole in the bracket and then pin 'em together with a 9/64-in diameter pin. (Note: Don't get confused. Have a buddy jiggle the driver's shift lever so's you know you're working with the shift bellcrank, not the steer bellcrank.)



Keep checking to see that it doesn't slip from this position or have a buddy hold it in place while you make the adjustments.

SECOND, REMEMBER TO KEEP AT LEAST 3/8 INCH OF THREAD ON ALL RODS ENDS. IF YOU'RE LENGTHENING A ROD FROM ONE END AND YOU SEE YOU'RE NOT GOING TO HAVE 3/8 INCH OF THREAD SCREWED IN, LENGTHEN THE OTHER END OF THE ROD SO YOU COMPENSATE.



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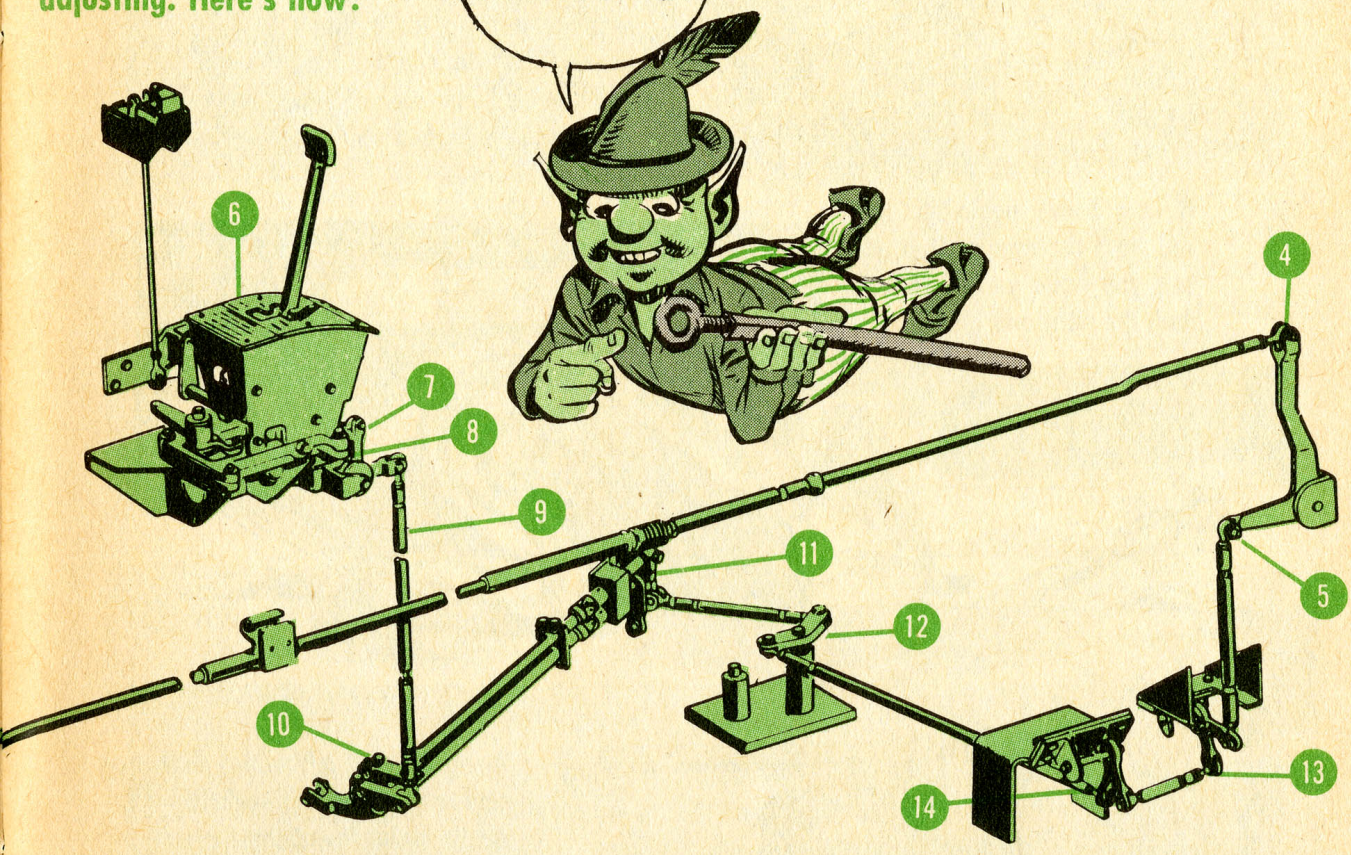
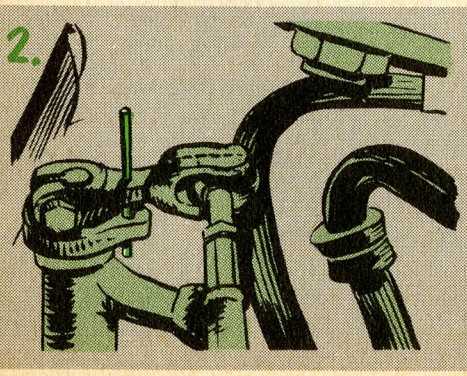


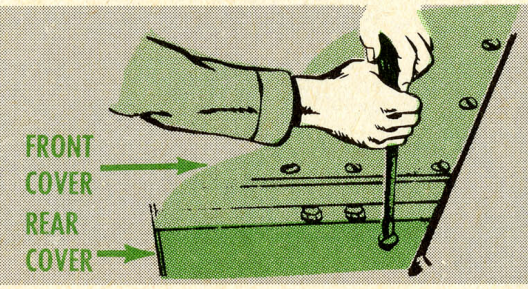


2. There's an alinement hole in the upper bellcrank to which this rod is attached. There's also an alinement hole in the bellcrank's support bracket. Move the hole in the bellcrank until it overlaps the hole in the bracket and then pin 'em together with a $^{9}/_{64}$-in diameter pin. (Note: Don't get confused. Have a buddy jiggle the driver's shift lever so's you know you're working with the shift bellcrank, not the steer bellcrank.)

You'll need a fistful of alinement pins before you're done, but if you can't get the pins, you can use No. 28 drill bits—they're helpful for working out any paint, grease or glob that's clogged the holes. You might also put the bite on your support unit for some $^{9}/_{64}$ -in drill stock.

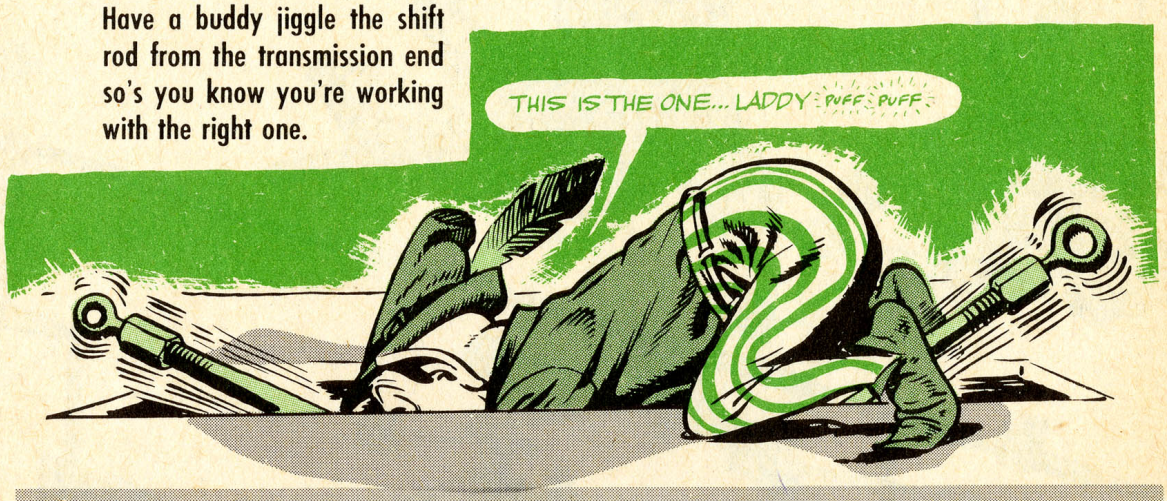
By starting to work on the shift linkage from the transmission end to the driver's end, instead of vice versa as is usually done, you'll avoid the confusion of fussing with the shift and steer bellcranks at the transmission end. They're located so close together you're apt to get 'em mixed up, or, what's just as bad, you're apt to drop your tools and parts into the engine compartment.

3.

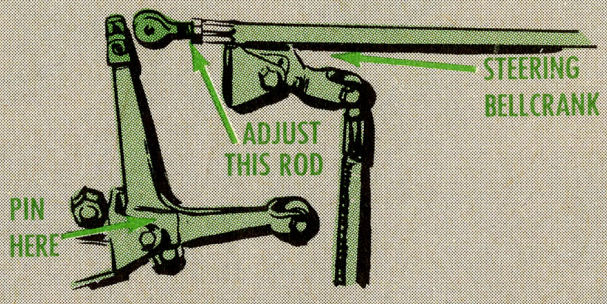


Now you're ready to start working inside the turret. Remove the rear access cover in the floor. Remove the front one, too, and you'll get a better idea of how the linkage is hooked up.

Have a buddy jiggle the shift rod from the transmission end so's you know you're working with the right one.

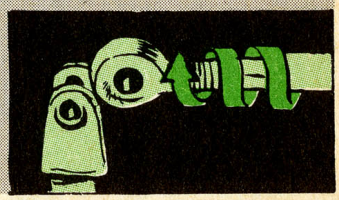


4.



Along the hull left wall, you'll find two bellcranks (they're beneath the oddment tray) more or less on top of each other. Disconnect the larger one at the top, and pin it to the support bracket.

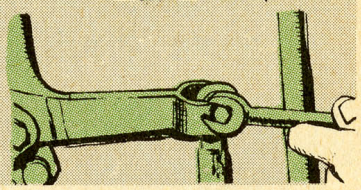
When you've pinned this bellcrank, adjust by either shortening or lengthening the long rod leading from the bellcrank to the one you pinned at the transmission end, so's you can fasten it to the bellcrank arm.



5.

To work with the next bellcrank, the lower one, you'll find it easier to wrestle with if you remove one of the brackets fastening the electrical cables to the wall, so's you can pull the cables down out of the way.

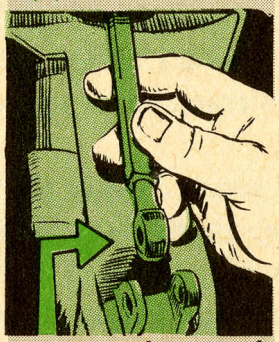
Disconnect the short vertical rod from the bellcrank previously pinned. And you'll be ready to work on the next section of the linkage.



6.

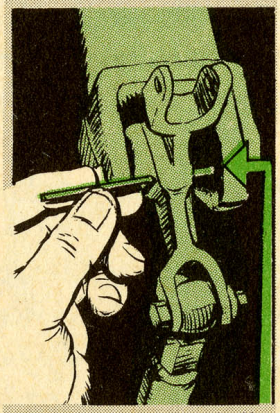
Now you're ready to put the shifting control lever on the shifting quadrant halfway between LOW and HIGH range. In this position it'll rest against a small V-shaped lug on the quadrant.

7.



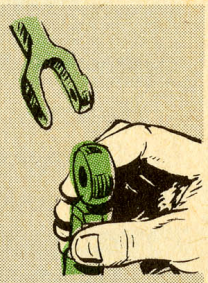
Disconnect the rear of the short horizontal rod at the bellcrank located behind the shift quadrant.

8.



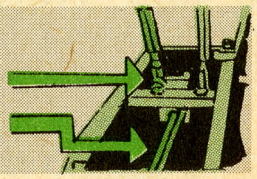
Aline and pin that bellcrank to its support bracket.

9.



Disconnect the next rod, which is the long vertical job leading from the first bellcrank to the turret floor. Loosen it at the end of the bellcrank you just pinned.

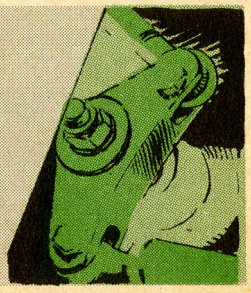
10. This vertical rod is attached to an arm, which in turn is fastened to a long shaft that goes back to the center of the turret. Another rod is hooked to the rear of this shaft.



11. Now, grab the vertical rod and move the rascal up and down till the arm at the bottom of the rod is as near horizontal, and the arm back at the rear of the shaft is as near vertical, as the naked eye can detect.

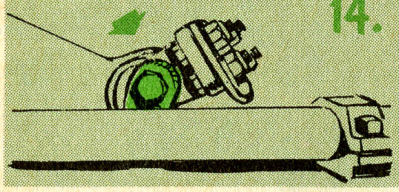
12. Screw the rod end in or out to get the rod the right length to hook back up to the pinned bellcrank.

Now follow the arm at the rear of the shaft past the next bellcrank and you'll see the start of another rod going back under the turret floor. The angle between these two rods and the bellcrank should be 90 degrees, or right angles.



13. Now go back to the lower bellcrank on the sloped portion of the hull floor, which you've already disconnected. Adjust the rod length, if necessary, and pin the bellcrank.

(Careful: In working with these lower bellcranks, make sure the heads of the bolts face each other, or the head of one faces the nut of the other, or else you'll find that the steering linkage'll kick off your shift linkage, since the bellcranks for each are so close together. In other words, make sure that the nuts of the shift and steer bellcranks do not face each other or they'll hit together.)



14. Now you've adjusted all the bellcranks inside the vehicle visible to the eye, leading from the shift quadrant to beneath the turret floor. There's one bellcrank under the floor that you can't see through the access hole. It may be that you won't have to adjust this one 'cause if your shift linkage works right after you adjust the others, you'll be OK.

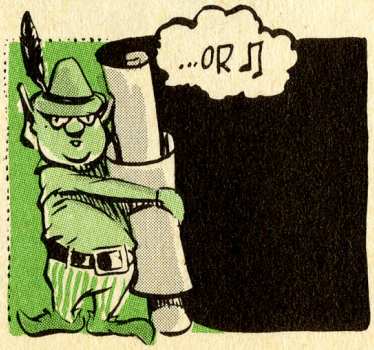
However, if the transmission shift arm won't follow the driver's control lever in all ranges, you'll have to pin that bellcrank to its support bracket and adjust the rods to fit.

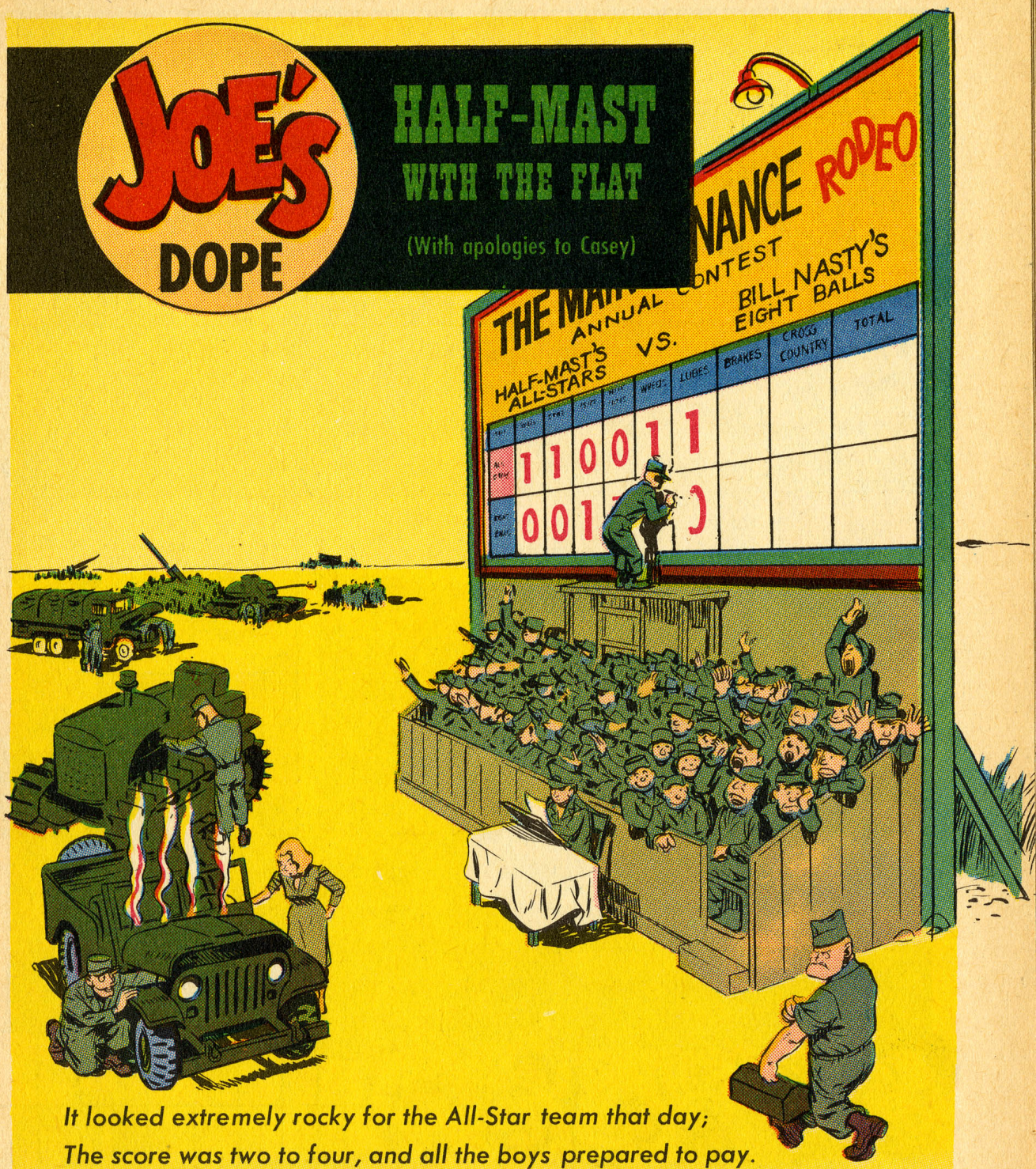
You get to it by opening the lower access door in the hull at the rear of the vehicle. Crawl in on your belly like a reptile in the left side, beneath the ammo racks. A buddy can help you out by reaching through the access hole in the floor and working with you to pin the bellcrank and adjust the rods. If you need more help, a third buddy can lie low and guide both of you to the bellcrank and rods—he can see what you're both doing by crawling up the center portion.

Now, the only rod you haven't adjusted is the one you disconnected in the first place—the rod from the hull left wall to the transmission. Move the transmission shift arm exactly halfway between HI and LO ranges. You don't need to measure, but 20-20 eyesight helps. Now adjust the rod to the right length and reconnect it.

Remove all alinement pins from the linkage and check to see that all jam nuts and capscrews have been tightened.

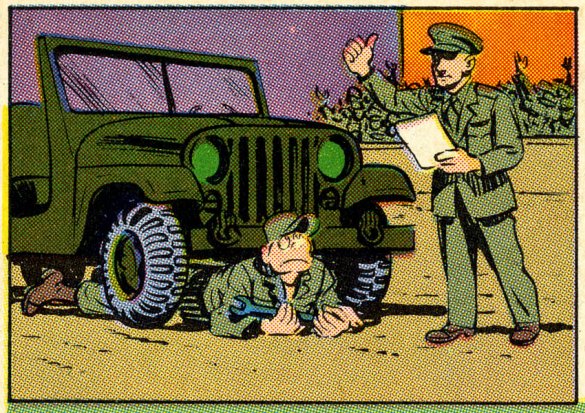
Have a buddy move the driver's shift control lever into each position while you watch the transmission shift lever to see that it shifts into each range as marked. (If the transmission won't shift, go back and pull out the alinement pin you forgot.) Remove the bolt from the transmission arm and make sure the hole in the rod alines on the button with the hole in the arm in each shift position.

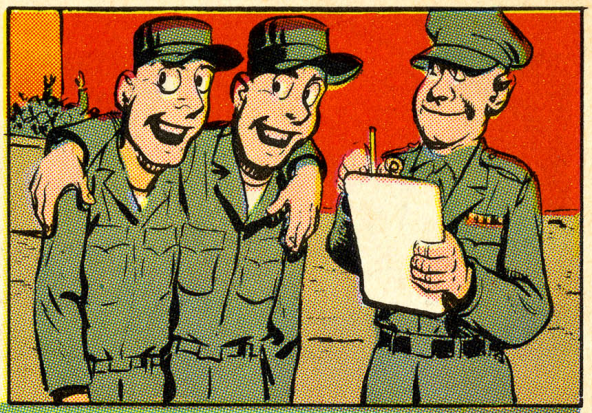




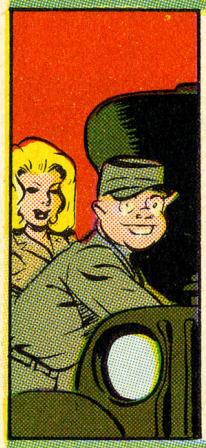
It looked extremely rocky for the All-Star team that day;
The score was two to four, and all the boys prepared to pay.
When Connie's engine coughed and died, and Dozer's did the same
The crowd just jeered and hooted at the team whose stuff was lame.

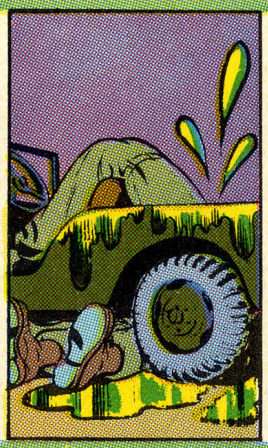
A lot of them gave up the ghost and figured things were through,
Leaving just a few to hope their outfit's stuff would do.
Some said: "Just watch ol' Half-Mast in that jeep cross-country run—
With Half-Mast riding shotgun there you'll really see some fun.

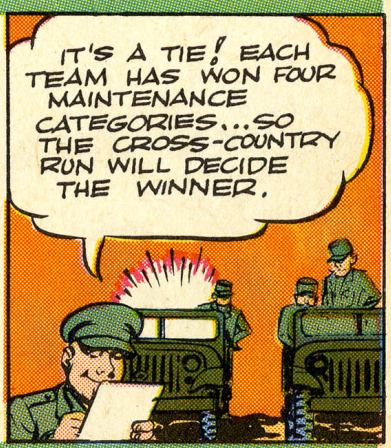




But Joe on "BRAKES" was coming up, and after that came "LUBES,"
And Joe on "BRAKES" was plenty weak—the twins on "LUBES" were boobs.
So, for the anguished team's true fans dark clouds obscured their sun.
It looked like there would be no need for him to make that run.

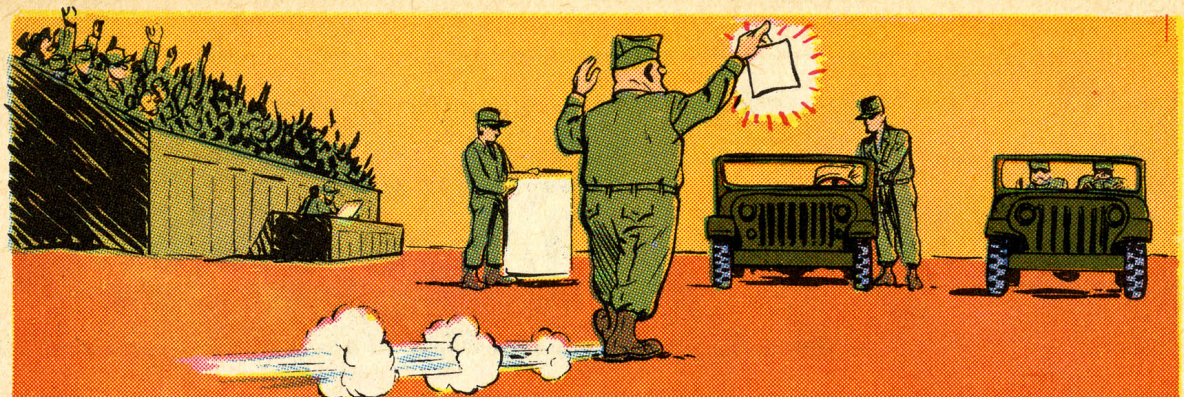




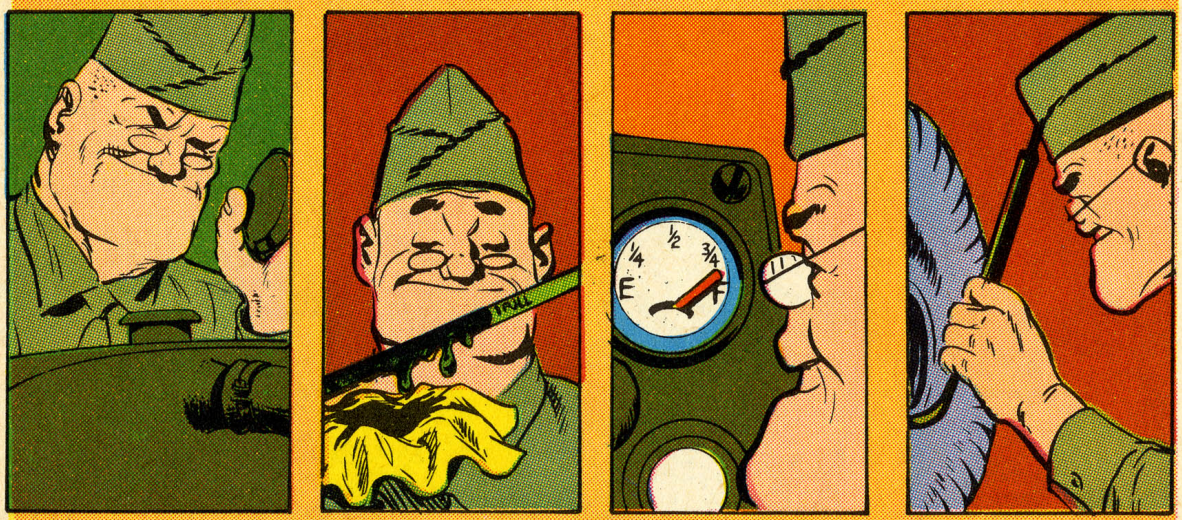


But Joe racked up a perfect score to set things up just right,
And then the careless twins shaped up—lubed everything in sight.
And when the grease was wiped away to give each seal a check,
The smiling twins had squared things up. The score was neck-and-neck.

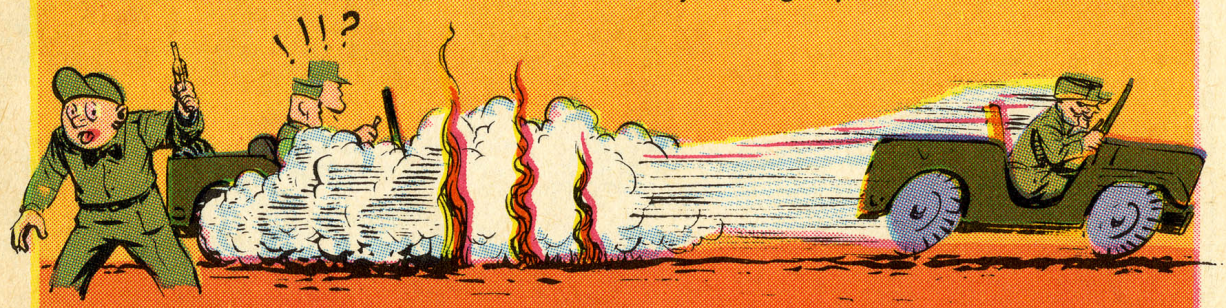
Then from the home town fans there came a whisper, then a roar.
It pounded on your eardrums like an MP on a door.
It bounded off the PX wall and echoed down the street.
The odds were even, down the line, the All-Star team would beat.



There was ease in Half-Mast's manner as he walked up to the Jeep.
There was pride in Half-Mast's bearing as he checked a gasket seep.
And when in answer to the yells he lightly waved a hand,
A DD 110 in it showed he had the whole thing planned.

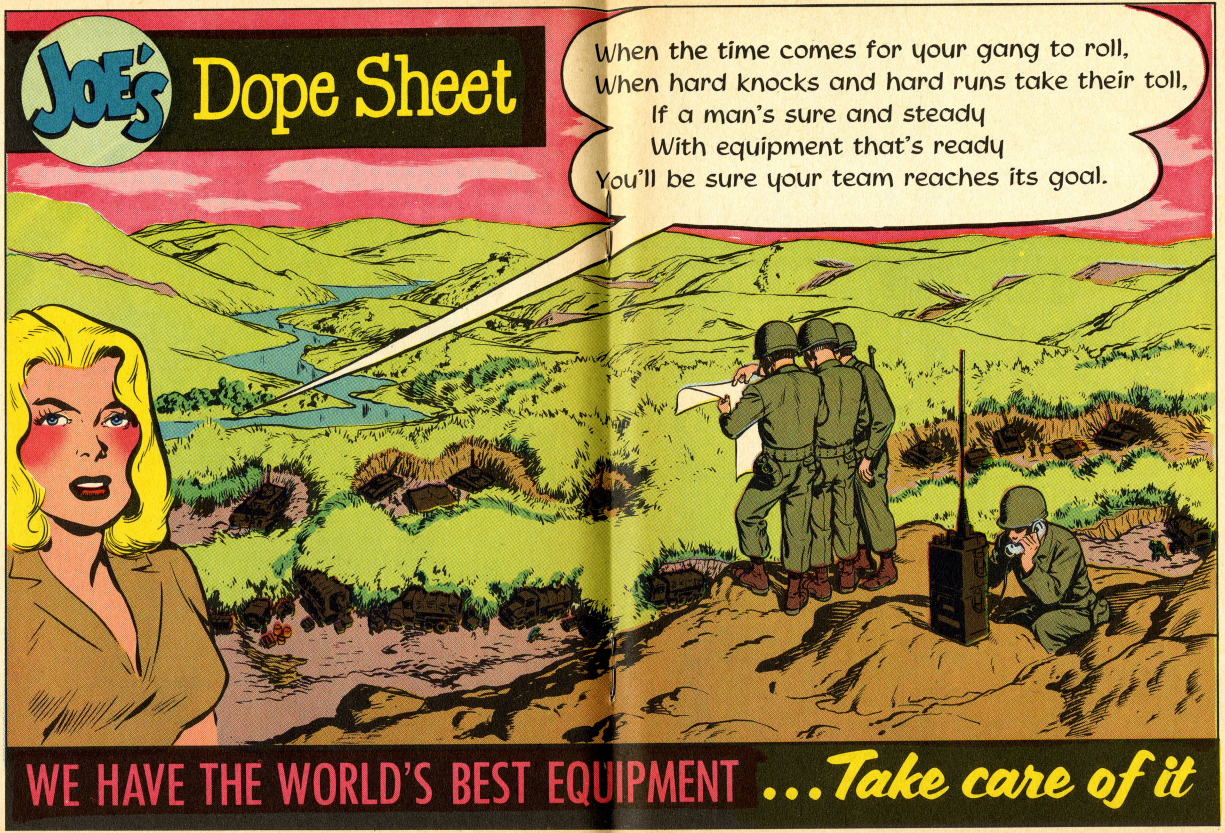


His loyal team applauded as he checked his crankcase oil.
The opposition hissed and booed at all his PM toil.
Then, as Nasty sneered and smirked and "gunned her in her place,"
The thought of bearings burned that way brought pain to Half-Mast's face.



But now the starter lifts his gun, and now they're on the line,
And waiting for that starting shot sends shivers down each spine.
But wait! Bill Nasty's tires have spun. He's off before the gun,
While Half-Mast waits until the shot to start that final run.

JOE'S
Dope Sheet
WE HAVE THE WORLD'S BEST EQU


JOE'S
Dope Sheet
When the time comes for your gang to roll,
When hard knocks and hard runs take their toll,
If a man's sure and steady
With equipment that's ready
You'll be sure your team reaches its goal.
WE HAVE THE WORLD'S BEST EQUIPMENT ...Take care of it

Vhen the time comes for your gang to roll,
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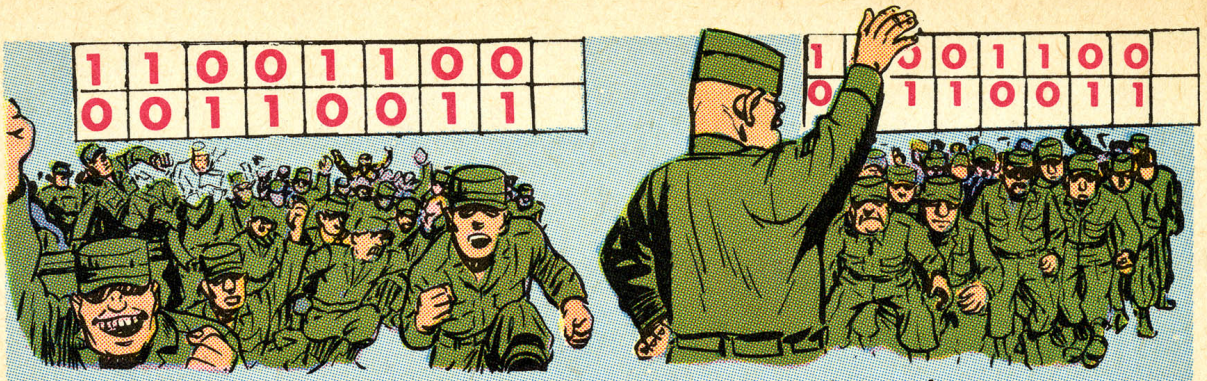
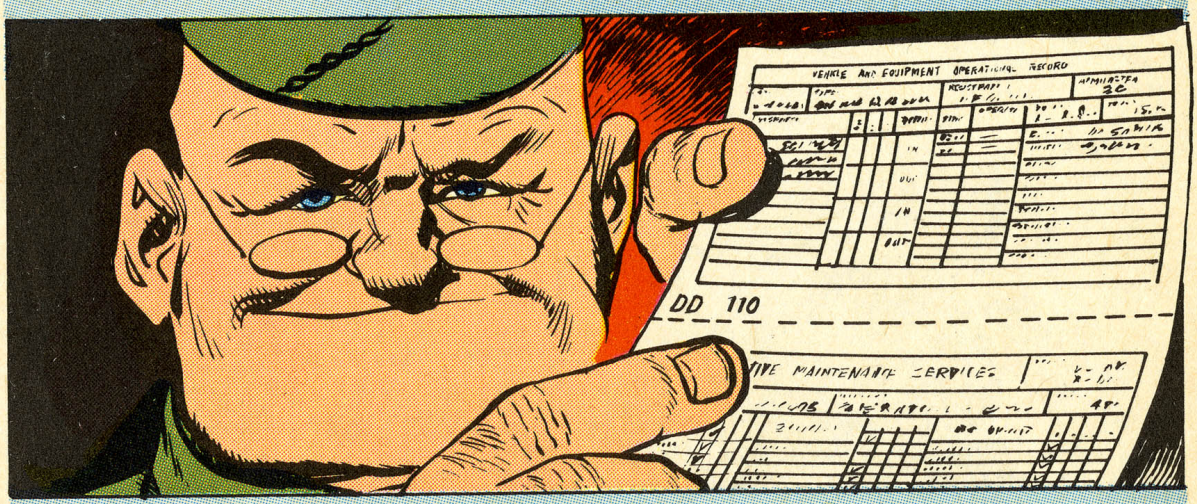
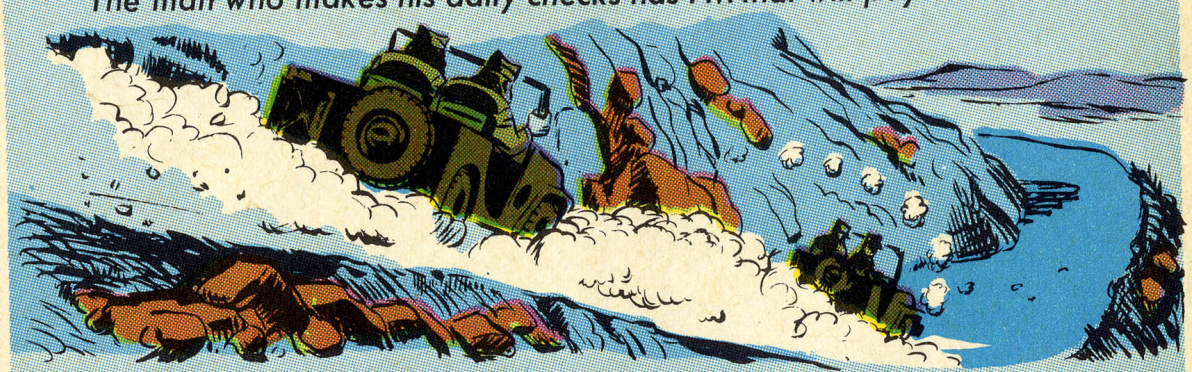
IPMENT ...Take care of it



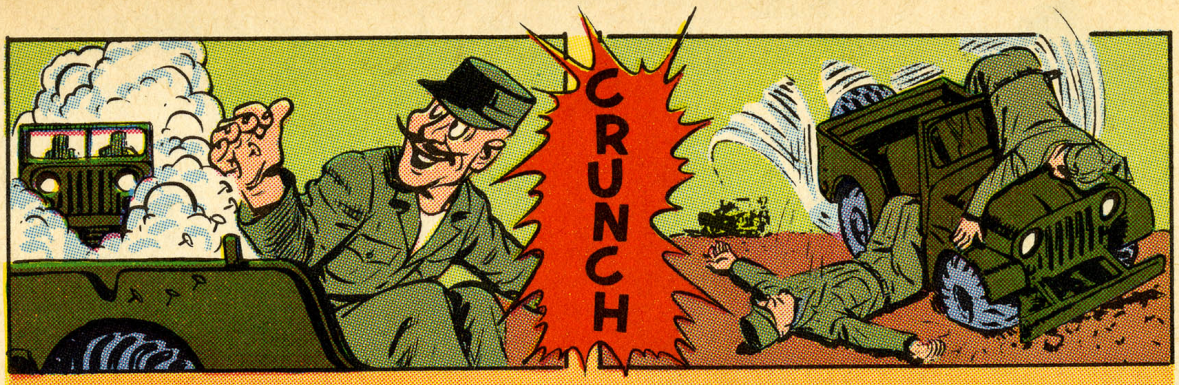
The All-Star fans exploded as they surged out on the track.
They called for forfeit victory, they called the drivers back.
"We'll bring him back and make him start the way he should have done!
But Half-Mast's shout then calmed them down: "This hand's already won!"



"We won before the start," he said, "because of PM checks;
The proper service separates the good ones from the wrecks—
The way you run, for real or fun, is set down every day.
The man who makes his daily checks has PM that will pay."

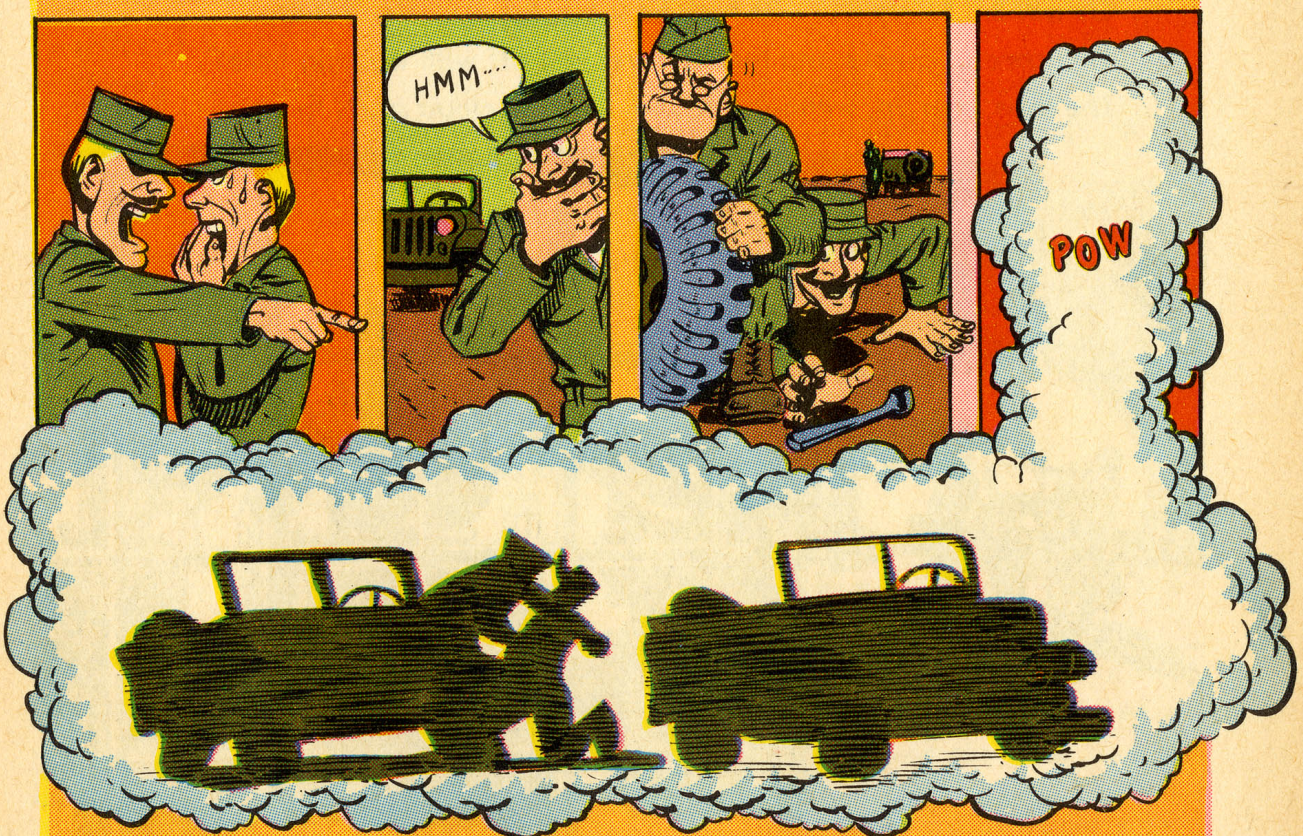


So now Half-Mast is closing fast and now they're sharply turning,
And rolling smoke from Nasty's jeep shows something's really burning.
His cheated lead has disappeared, his engine's smoking hot,
The time has come to pull a trick that Half-Mast hasn't got.

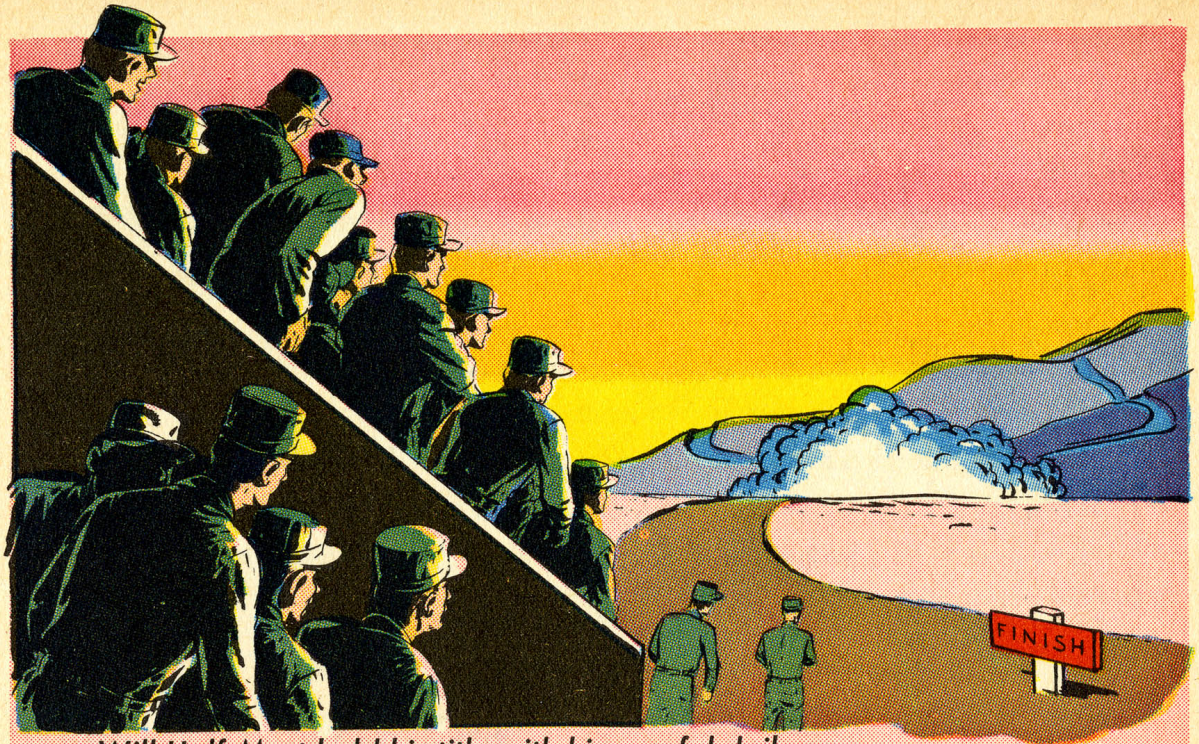


He reaches for a hidden box of nails, beneath his hat.
He drops them on the road behind and waits for Half-Mast's flat.
He hears a front wheel bumping as he's laughing up his sleeve,
He waves at Half-Mast's helper as the All-Stars start to grieve.

But then an unseen chuck-hole gives a dosage of the same.
The fastest man with tires will be the winner of this game.
Then Half-Mast grabs his OVM and reaches for his spare;
When Nasty reaches for his own he finds it isn't there.

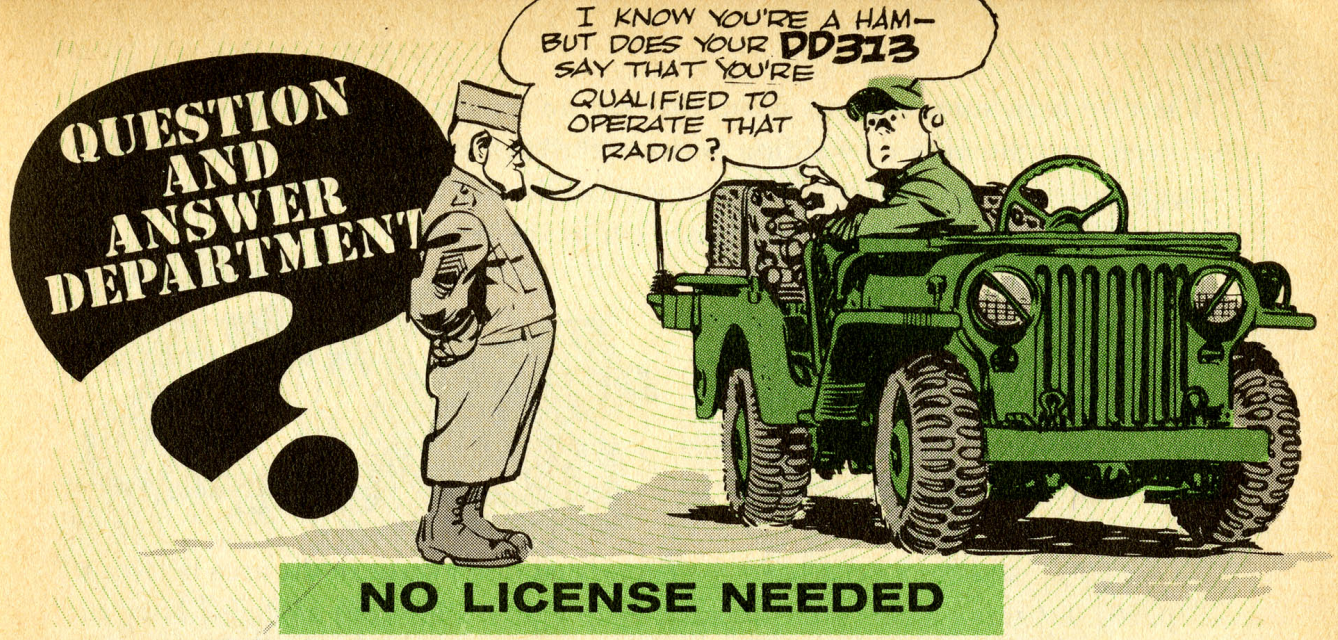


The smile is gone from Half-Mast's lips and Dozer's muscles strain.
Just one delay in changing tires will flush 'em down the drain.
Just then the villain starts to reach for Half-Mast's OVM—
A dust cloud cuts the bleachers off from any view of him.



Will Half-Mast hold his title with his careful daily care,
Or will Bill Nasty win with luck beneath the dust cloud there?
Will careful checks and tender care pay off with winning here?
The fans leap up, without a sound; the dust cloud starts to clear—

Oh, somewhere off the post tonight the glasses lift on high,
The bets are in and all the gang is cutting up the pie.
The money's on the table and the trophy's in the case,
While Half-Mast, Careful Half-Mast says: "Our PM won the race."



NO LICENSE NEEDED

Dear Sgt Half-Mast,

Please quote for me the regulations, if any, that say radio, radar, or switchboard operators have got to have licenses to operate their equipment. What tests do you give them?

SFC J. R. D.

Dear SFC J. R. D.,

There's no regulation that says they have to be or should be licensed.

It's up to the CO to make sure the operators are qualified in their specialty either through school or by on-the-job training.

Lots of CO's also see that the radiomen are qualified and licensed to drive the vehicles on which their sets are mounted. In which case, they would have to be licensed drivers, and the vehicles they can drive should be shown on their DD Form 313.

Half-Mast

OOH, MY ACHIN' FRAME

Dear Sgt Half-Mast,

On giving the frames of our M51 dump trucks a real close inspection we found some small splits and cracks around the rivets—especially on the sub-frame.

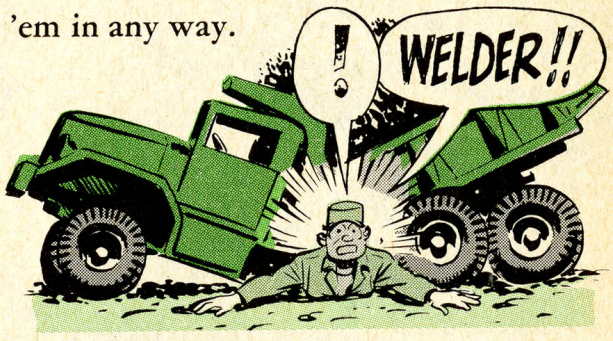
These cracks are small ones, like I said, so couldn't we weld them or have our support unit weld them? They don't look like they'll be giving us any trouble for awhile. Welding would keep them from getting bigger and the weld should make the frame stronger than before.

SFC J. H.

Dear SFC J. H.,

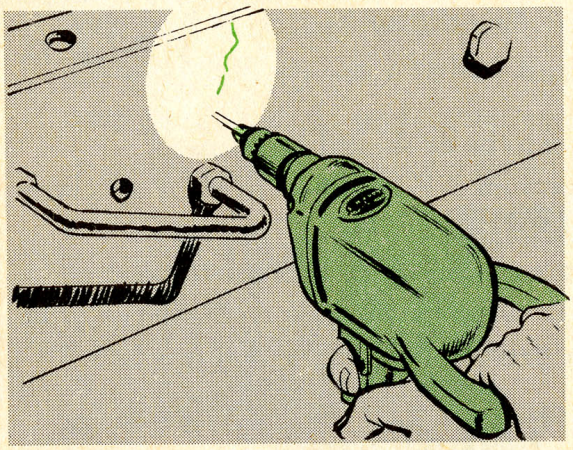
Making a close inspection of your M51 frames is a darn good idea—but when it comes to welding, that's another story.

There've been some regs set down that say **no** repairs will be made on frames that need straightening or welding between the extreme forward and rear spring hangers or brackets (or suspension support brackets). You can find the scoop on this in AR 750-2300-7. You don't repair 'em in any way.



If you try to repair 'em, you're taking a chance on being let down—a sagging frame doesn't make for a pretty picture. A lot of guys could be depending on you and your truck at the time it folds in the middle. You take action on the frames like it says in AR 755-2300-2.

Now, it's possible to fix cracks in the frame that don't come in the area between the spring hangers, but let your support people take a look-see at them. They're the ones to decide. Could be a ⅛-in diameter hole drilled at the end of the split will stop it from going further. These frames are heat treated and sometimes weld can do more harm than good. They may not be as strong or rugged as they look.



Be a good idea if your mechanics or maintenance teams scan the frame on your M51's during PM services. You should check your troubles before they start.

One more thing. Let the top level men in on this, too, by sending in a UER (DA Form 468) when you come across these cracks.

Half-Mast

IN THE CAN

Dear Half-Mast,

We've been keeping the rust out of our stored 5-gal gasoline cans by coatin' their insides with Lubricating Oil, Preservative Special. It sure does a good job, but it's only a one-time cure.

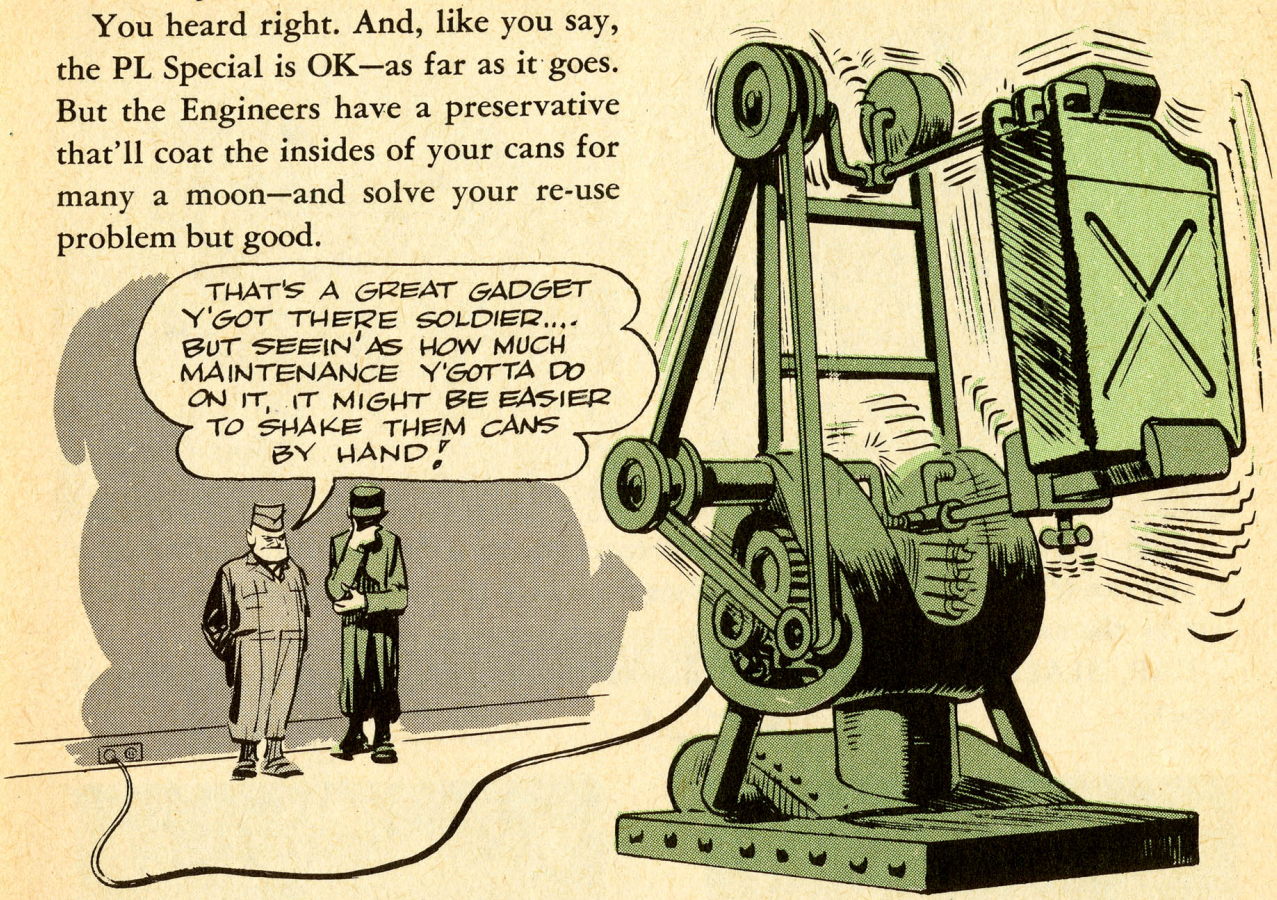
Soon as you start using the can again, the oil mixes with the fuel and that's the end of it. When you put the can in storage again—you gotta coat it again.

Heard tell a while back about some stuff that we can coat those cans with that won't ever come off. Real rugged, I hear. Some of the rebuild depots use the stuff to coat the inside of truck gasoline tanks. If it's good for them then maybe it's good for our cans. Can you set me on the trail, Sarge?

SP2 J. M. P.

Dear SP2 J. M. P.,

You heard right. And, like you say, the PL Special is OK—as far as it goes. But the Engineers have a preservative that'll coat the insides of your cans for many a moon—and solve your re-use problem but good.



This stuff won't flake, blister, wrinkle or dissolve. And it'll stand up to gasoline and kerosene like a real Trojan. The name: Insulating Compound (MIL-I-13811A), Alkyd Resin. FSN 8010-298-3870 will bring you one quart; and FSN 8010-263-3196 is good for five gallons.

The coating job, 'course, is still the same. Pour about a gallon of the compound into the first can . . . cap the can . . . and slosh the compound around until the insides are covered. Then pour it into another can and repeat the process.

Store the coated cans according to local SOP.

Half-Mast

PICK A PLUG

Dear Connie,

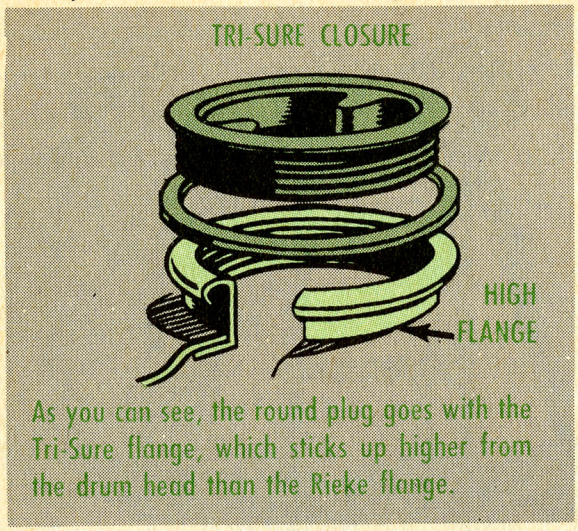
I've been having trouble with my plugs. The ones that go in 55-gal drums. Some of them just don't seem to fit right, even though I can manage to screw 'em in if I try hard enough. But that always leads to leaks. What gives?

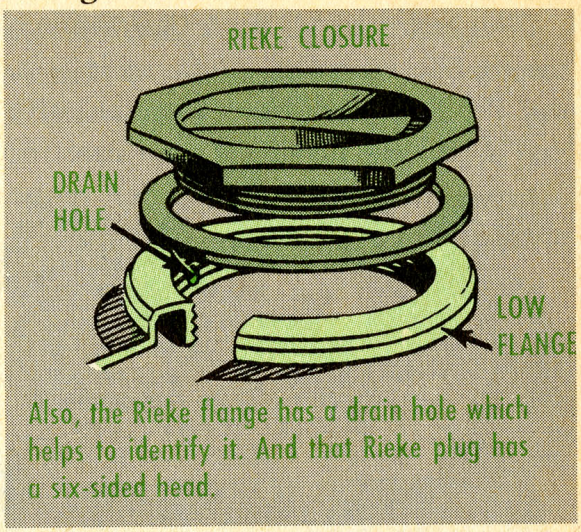
PFC R. M. H.

Dear PFC R. M. H.,

No amount of tightening will help you if you've got the wrong plug for the hole. There are two different kinds of plugs being used on 55-gal drums, and

they're not interchangeable. They screw in all right, but they won't stop leaks. You just have to use the right plug with the right hole.





Your best bet is to memorize the difference between the two plugs and flanges so you can tell right off which drum uses what cap. If you need new caps, call for 'em by the number:

CAP, SEALING, 55-gal, steel drum (formerly: Plug, steel drum, flanged type).

TRI-SURE	RIEKE
¾-IN (VENT) FSN 8110-030-1460	¾-IN (VENT) FSN 8110-025-3374
2-IN (BUNG) FSN 8110-030-1461	2-IN (BUNG) FSN 8110-025-3375

Dear Half-Mast,

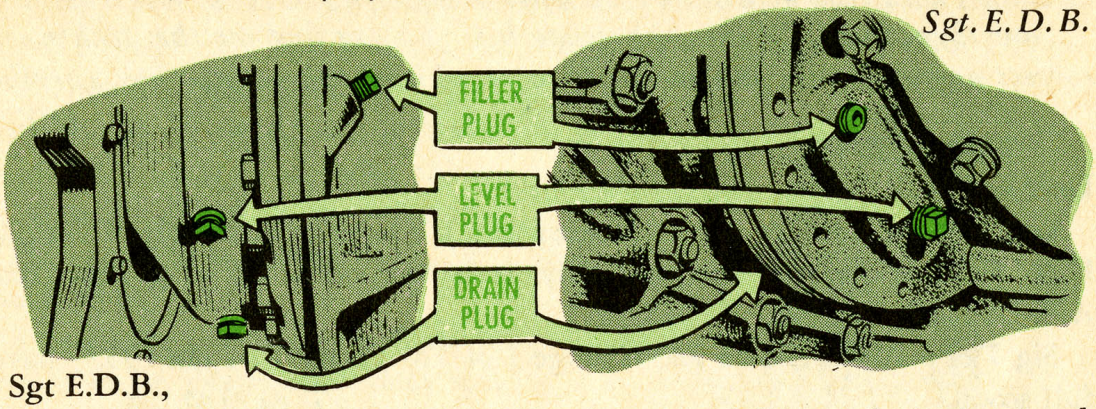
I'm confused. If I take Figure 211 on page 316 of TM 9-7418 literally, the oil drain plug won't let out all the oil in the final drive housing of my M75, and if I use the top plug as both a filler and level plug, I get the housing awful full.

Looking up at the top of the same page in the manual at Figure 210, which shows the older final drive, I find **three** *plugs, drain, level and fill.*

Then looking at my M75 final drive housing, I also find **three** *plugs, but no*

mention of the bottom plug in the TM . . . Seems to me that these three plugs oughtta be drain, level and fill just like the older one. What gives?

Sgt. E. D. B.

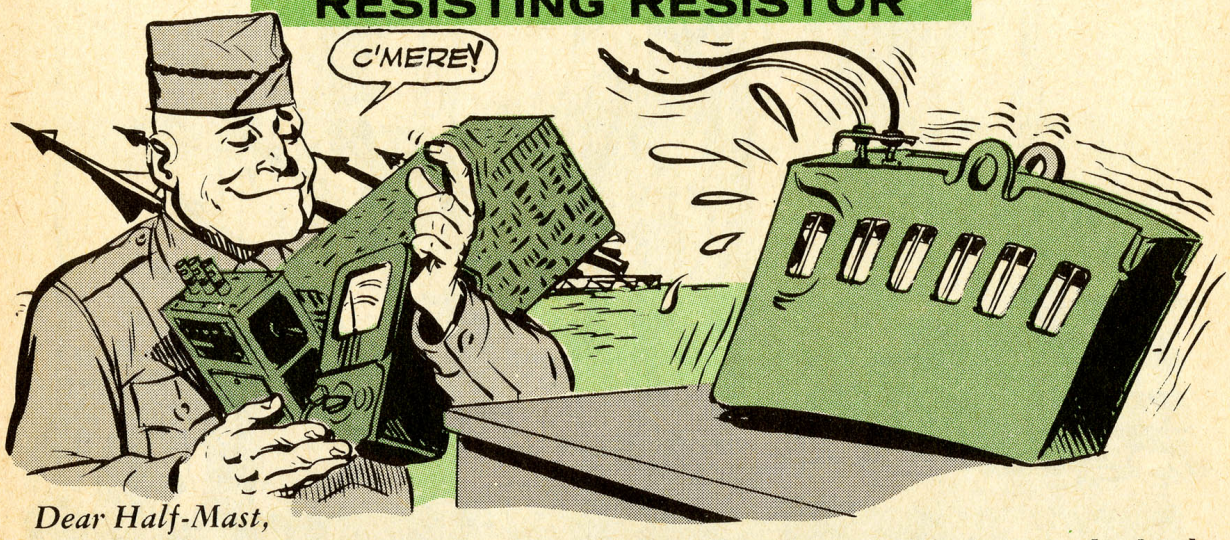


Dear Sgt E.D.B.,

You're right, those three plugs you found on your M75 are drain, level and fill plugs, just as you figured. Use 'em that way. Also see change 1 to TM 9-7418. It's dated 10 Mar 58.

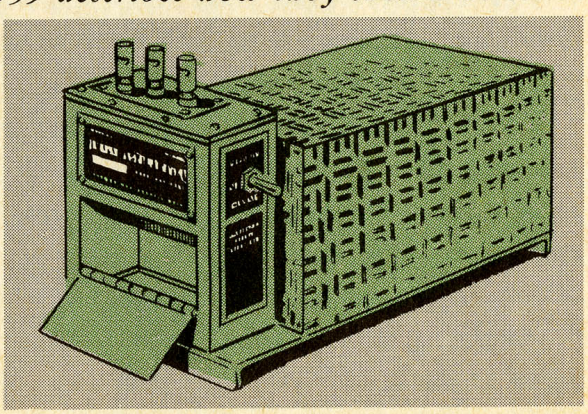
Half-Mast

RESISTING RESISTOR



Dear Half-Mast,

As you know, all BB-401/U batteries in Nike-Ajax missiles have to be load tested before being installed. TM 11-5539 describes how they should be tested and says that a resistor box assembly is to be used to load down the fully charged battery. The BB-401/U's have to deliver 10 amps for 15 minutes, then a voltmeter is slapped across the terminals to measure the voltage.



Since this is the only fully reliable test of the battery, it then follows that the lil ol' resistor box assembly is a highly important piece of equipment.

Now here comes the rub! Nowhere, but nowhere, can I find the resistor box listed. It's not in the TOE or any reference other than TM 11-5539.

Now then, Sarge, I'd sure appreciate it if you can find me the stock number, correct nomenclature, and authority to requisition this resistor box assembly.

Lt T. E. B.

Dear Lt T. E. B.,

Got just the number you're looking for. It's Resistor Assembly MX-1678/U, FSN 5905-642-2456. The assembly is a component of Test Set Battery AN/USM-63.

Sig 7 & 8 AN/USM-63 and Change 1 of TM 11-5069 (4 Jan 1957) have the full scoop.

Half-Mast

Dear Connie,

The weather at our Nike site is usually warm—and sometimes gets mighty hot. One hundred degrees in the sun is common. And that makes things hot for the guys who fuel and defuel the missiles.

Those protective outfits they wear may keep 'em safe from harmful fuel splashes, but they sure don't give protection from the sun. Some of our men can't stay in the suits more than five or ten minutes under those conditions.

Anything we can do, Connie, to take some of the sweat out of the job?

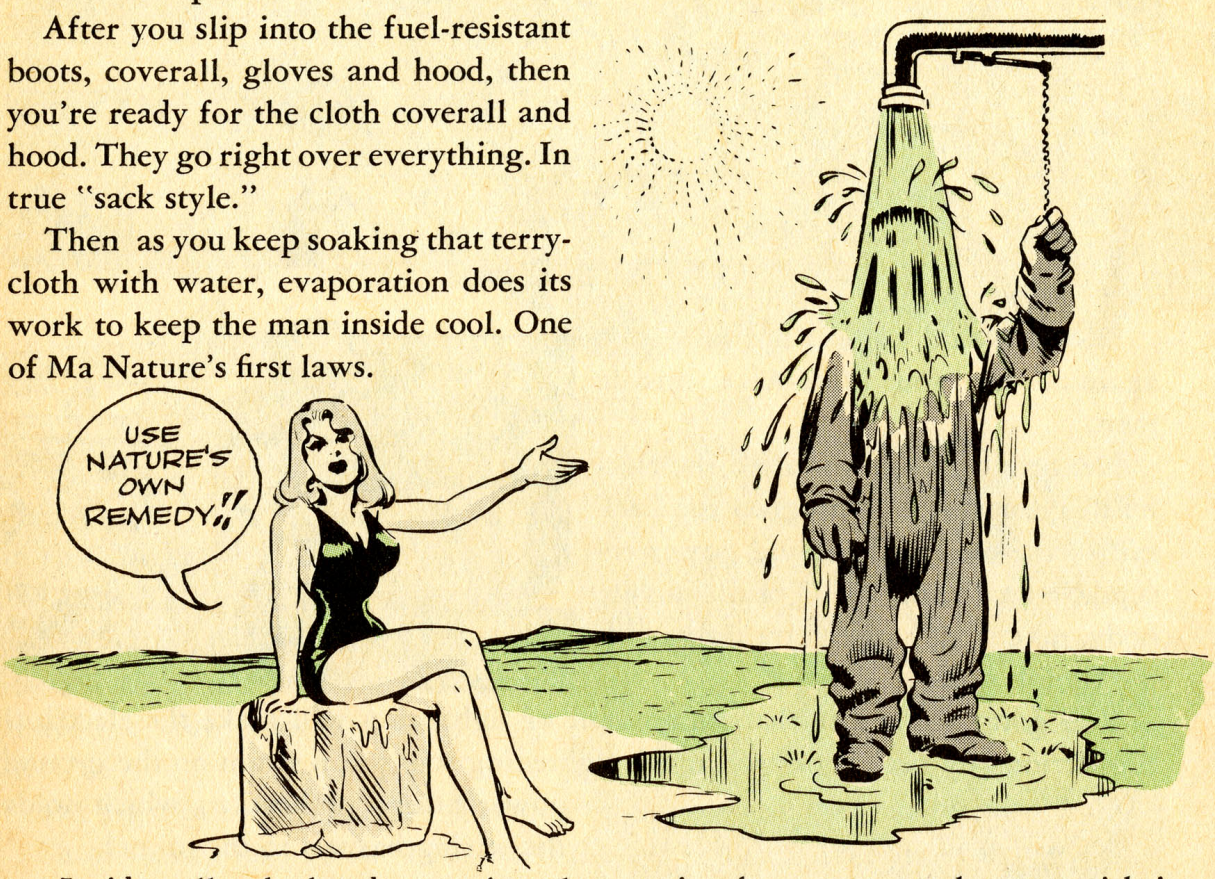
Sgt H. P.

Dear Sgt H. P.,

Think I'll throw some cold water on your trouble, Sarge. Come to think of it, that's the whole idea. Your guided missile fuel handler's wardrobe includes a supply of terry-cloth coveralls and hoods—that use the principle of water evaporation to keep a handler cool.

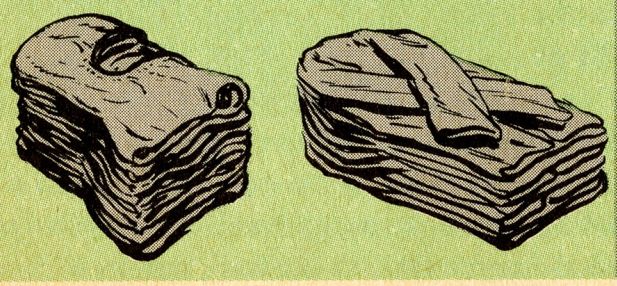
After you slip into the fuel-resistant boots, coverall, gloves and hood, then you're ready for the cloth coverall and hood. They go right over everything. In true "sack style."

Then as you keep soaking that terry-cloth with water, evaporation does its work to keep the man inside cool. One of Ma Nature's first laws.

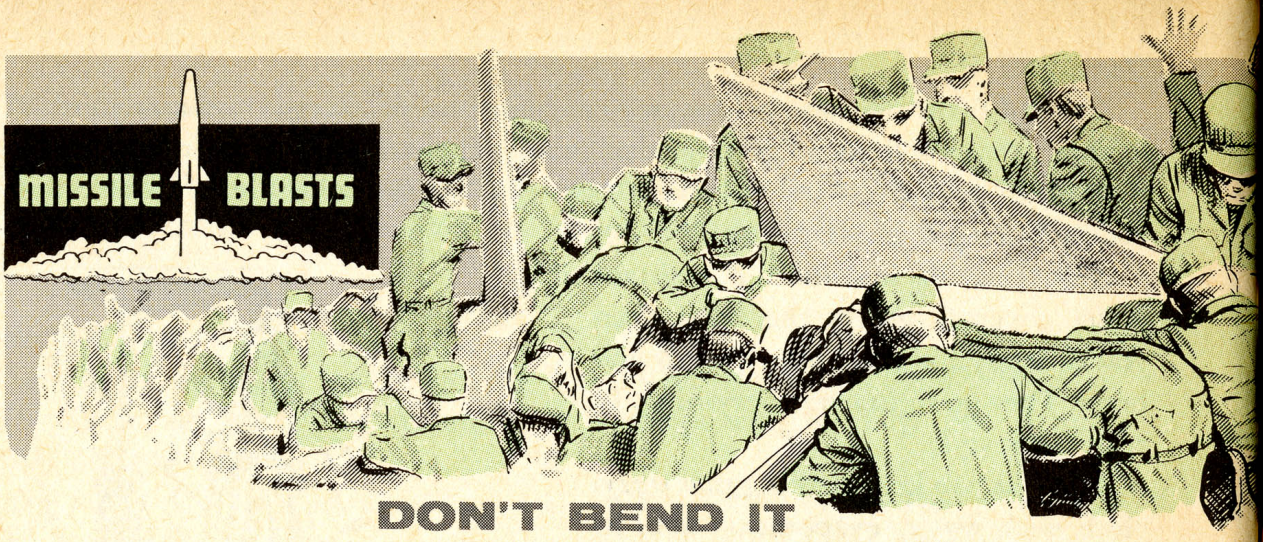


Incidentally, the hood comes in only one size, but you can take your pick in the coveralls. If you're in an ordering mood, here's a quick rundown on those cool rags: (TB 10-277 and SM 10-1-8415 give you more details on description, use, sizes and numbers).

NAME	SIZE	FEDERAL STOCK NUMBER
COVER, COOLING, ROCKET FUEL HANDLER'S HOOD, terry cloth, olive green		8415-264-1488
COVERALLS, COOLING, ROCKET FUEL HANDLERS', terry cloth, olive green	small-short	8415-272-3019
	small-reg.	8415-272-3018
	small-long	8415-272-3017
	medium-short	8415-272-3014
	medium-reg.	8415-272-3013
	medium-long	8415-272-3016
	large-short	8415-272-3015
	large-reg.	8415-272-3021
	large-long	8415-272-3020



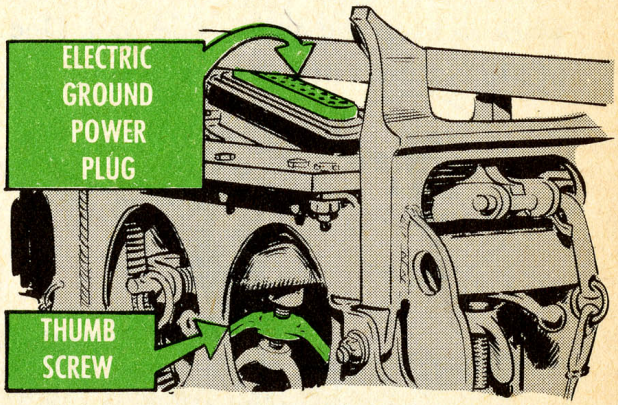
Connie



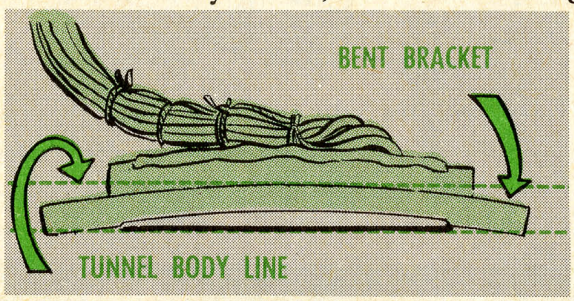
DON'T BEND IT

It's been said before, but here it is again . . . for you Nike-Ajax missile men.

Next time you go to fasten the electrical ground power plug on the L&T rail to the electrical ground power receptacle on Tunnel No. 3 of the missile body, take it easy when you tighten up the thumb screw.

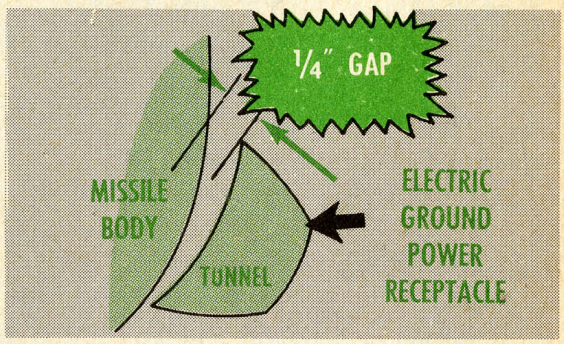


You gotta remember that no amount of tightening will make the electrical connection any better, but too much tightening will put a strain on the ground power fitting, or bracket, which holds the wiring harness to the tunnel.



That bracket'll only take so much before it bends, and when that happens the tunnel will bend outward—and you won't have the close contact that's needed with the missile body.

Could be that long after you've released the pressure of the plug against the receptacle, the tunnel won't go back into place—you might even have as much as a ¼-in gap between the tunnel and the missile body. Then when the missile's in flight, the tunnel might go its own way.



So save yourself some sweat and remember to tighten the thumb screw just enough to make sure the plug will stay in place in the receptacle. And, if you find a bracket that's bent, take it off and have it straightened. You'll have to dejoin the missile first, but it's worth the extra time in the long run.

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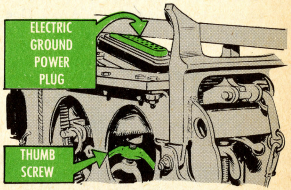

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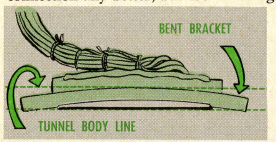

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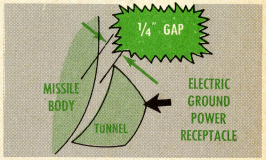

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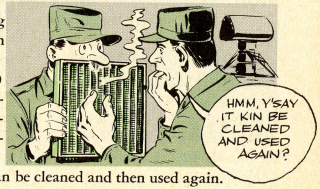
A FILTER TIP



You Nike-Ajax guys should be using the latest air filter in your acquisition antenna by now.

The new filter (FSN 1230-692-1461) is used in the modulator assembly, coupler assembly and panel group. It replaces the spun glass filter FSN 4130-288-7667.

The big thing is that the new filter can be cleaned and then used again.

There's some info on the filter itself that tells you about cleaning it, but here's the latest scoop. It'll give you better results.

Put the filter, dirty side down, in a pan that's been set up in a spot where there's lots of ventilation. Pour some volatile mineral spirits (FSN 8010-242-2089 brings a gallon from the Engineers) in the pan until the filter's covered. Let the filter soak for a good hour.

After the filter's soaked real good, work on it with a clean paint brush to get rid of all the junk that loosened up. If you need a paint brush, FSN 8020-242-7266 will get you a 3-in job from the Engineers.

Once the filter's clean, put it aside to let it dry.

Meanwhile . . . get rid of the solvent, clean the pan and refill it with OE 10 when the temperature is between −45°F and +19°F. But in temperatures above 19°F, switch to OE 30 . . . just like it says in TM 9-5018-1-1.

Dunk the dry filter in the oil and let it soak for 15 minutes. Then take it out, lay it down flat on a clean surface, and let it drain for at least 24 hours.

You can keep it in good shape for using again in the future by wrapping it in some Quartermaster packaging paper. The stuff's called Barrier Material, greaseproofed, flexible. FSN 8135-171-0937 gets you a 24-in wide roll.

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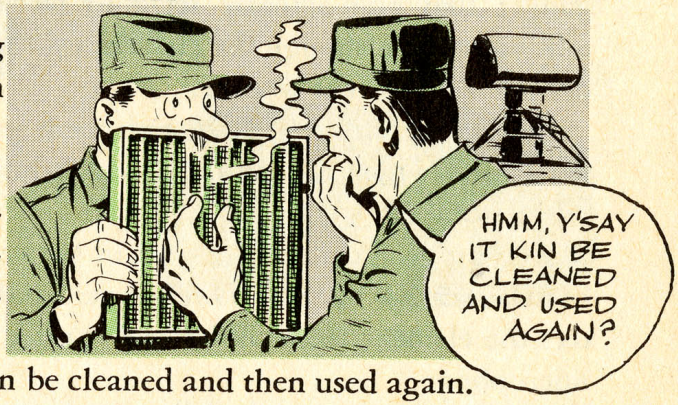

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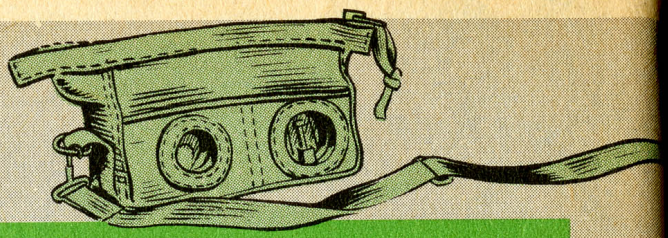
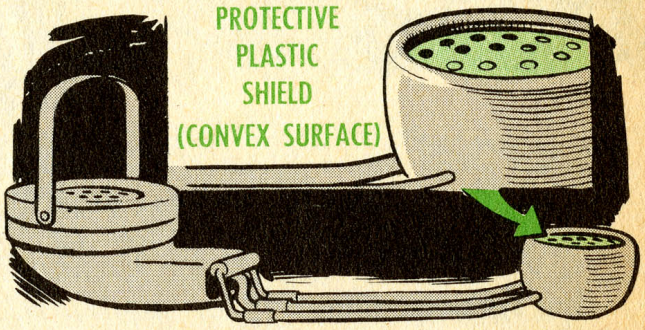


THE BULGE IS OUT

The best way for a bulge to bulge is outward. Whether you're dealing with the barracks pin-up gal or something as unglamorous as an H-81( )/U handset—headset and its successor, H-144/U.

So why talk about the handset? Well, the microphone on it has a protective plastic shield over the microphone element itself. That shield, of course, is the gadget that you actually seem to be talking to . . . although the element underneath is the real worker.



But it's delicate—fragile—and needs protection. Which is why the shield is there, and which is why the shield is built to arch upward and bulge outward when installed.

This bulge allows a little space in between the shield and element to serve as a buffer in case a Joe gets butter-fingers and lets his set drop. Also, it helps to protect the element from the "icing" caused by your breath when talking into the microphone.

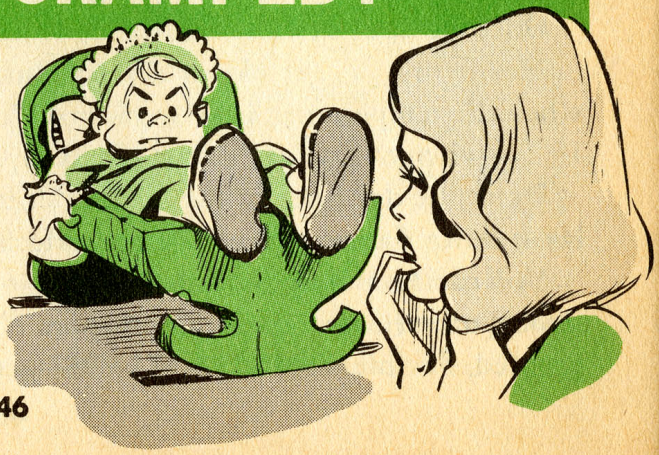
So when the time comes to inspect the element—and the rest of the handset—that shield comes off. And it's as easy as sipping suds on a hot night to put that shield in the wrong way: With the bulge inward. That'll damage the microphone element—lead to icing—and one of these days leave you with a dead mike.

Simple preventive maintenance says to put that cover on with the bulge out—like a bulge should. Keep it convex, so to speak!

CRADLE CRAMPED?

Dear Half-Mast,

I've been hollerin' around for some aid and comfort about my TA-312/PT telephone set. Maybe mine is a lost sheep that slipped through the lines, or something, but the H-60/PT handset just doesn't quite fit snug in its cradle.



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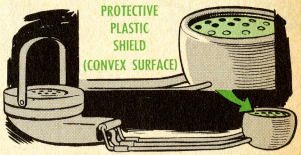

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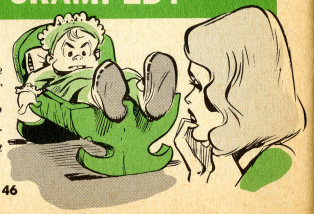

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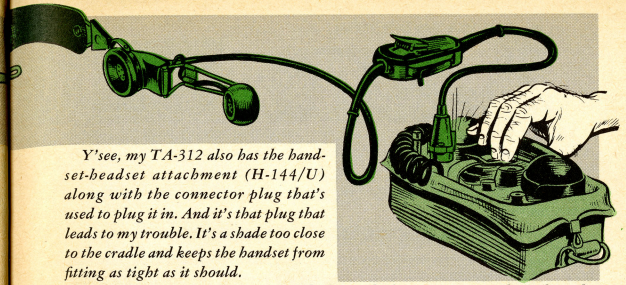


Y'see, my TA-312 also has the handset-headset attachment (H-144/U) along with the connector plug that's used to plug it in. And it's that plug that leads to my trouble. It's a shade too close to the cradle and keeps the handset from fitting as tight as it should.

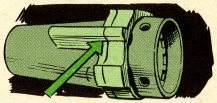
So when I finish jawing with somebody up the line, I never get the feeling that the H-60 is hung up right. Got any advice for me, Sarge?

MSgt F. L. M.

Dear MSgt F. L. M.,

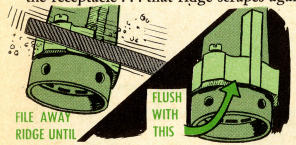
Got your message sure 'nuff, and think this old Sarge can keep your cradle from rockin' its baby.

H'yars the formula . . .



That connector plug has a small raised ridge running up one side so a man wearing gloves can get a turning hold on it. Which is just fine. But you can see that the receptacle and cradle are close together—maybe a shade too close.

Because when the handset is popped into its cradle . . . and the plug is fitted into the receptacle . . . that ridge scrapes against the side of the handset. Not good.

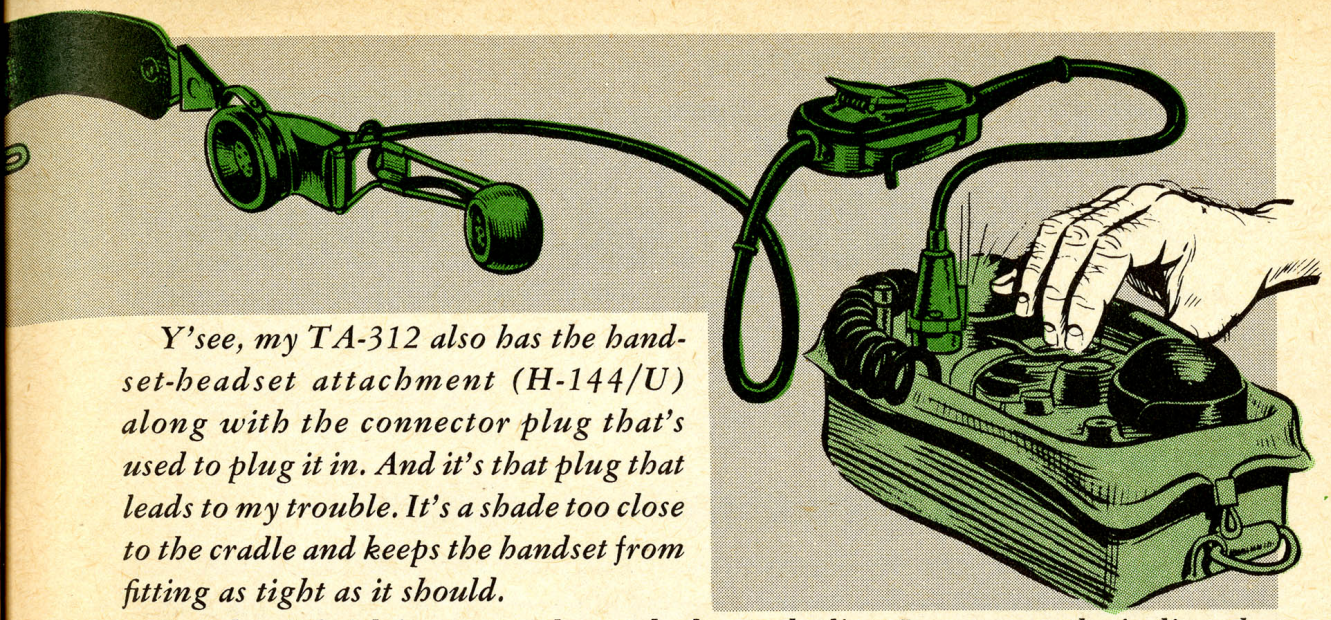


So the word has come down that a little work with a file will ease things up just right. Latch onto a file and file away the ridge until it's flush with the curved side of the large diameter of the plug. That'll give you enough clearance and won't take more than a few minutes of filing. The metal is soft and files easy.

Newer models of the TA-312 don't have this problem, 'cause the key and turning device on the receptacle locks the plug in place with the ridge facing away from the headset.

But if you're making your calls with an earlier model, just file away your troubles.

Half-Mast



Y'see, my TA-312 also has the handset-headset attachment (H-144/U) along with the connector plug that's used to plug it in. And it's that plug that leads to my trouble. It's a shade too close to the cradle and keeps the handset from fitting as tight as it should.

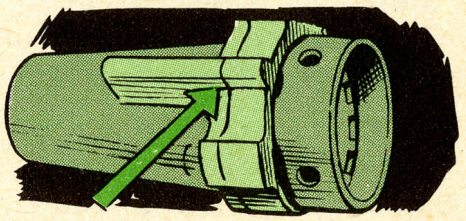
So when I finish jawing with somebody up the line, I never get the feeling that the H-60 is hung up right. Got any advice for me, Sarge?

MSgt F. L. M.

Dear MSgt F. L. M.,

Got your message sure 'nuff, and think this old Sarge can keep your cradle from rockin' its baby.

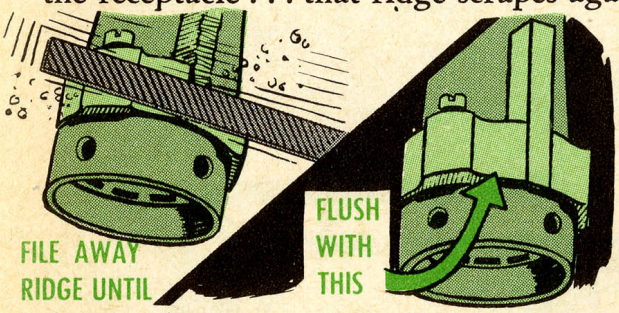
H'yars the formula . . .



RIDGE SCRAPES HANDSET

That connector plug has a small raised ridge running up one side so a man wearing gloves can get a turning hold on it. Which is just fine. But you can see that the receptacle and cradle are close together—maybe a shade too close.

Because when the handset is popped into its cradle . . . and the plug is fitted into the receptacle . . . that ridge scrapes against the side of the handset. Not good.



So the word has come down that a little work with a file will ease things up just right. Latch onto a file and file away the ridge until it's flush with the curved side of the large diameter of the plug. That'll give you enough clearance and won't take more than a few minutes of filing. The metal is soft and files easy.

Newer models of the TA-312 don't have this problem, 'cause the key and turning device on the receptacle locks the plug in place with the ridge facing away from the headset.

But if you're making your calls with an earlier model, just file away your troubles.

Half-Mast

BE YOUR OWN INSPECTOR ON

YOUR

The best way to keep from running into inspection trouble with your equipment is to make like an inspector yourself. Say, for instance, you have an M2A1 Portable Flame Thrower. Here are the things you'd look for.

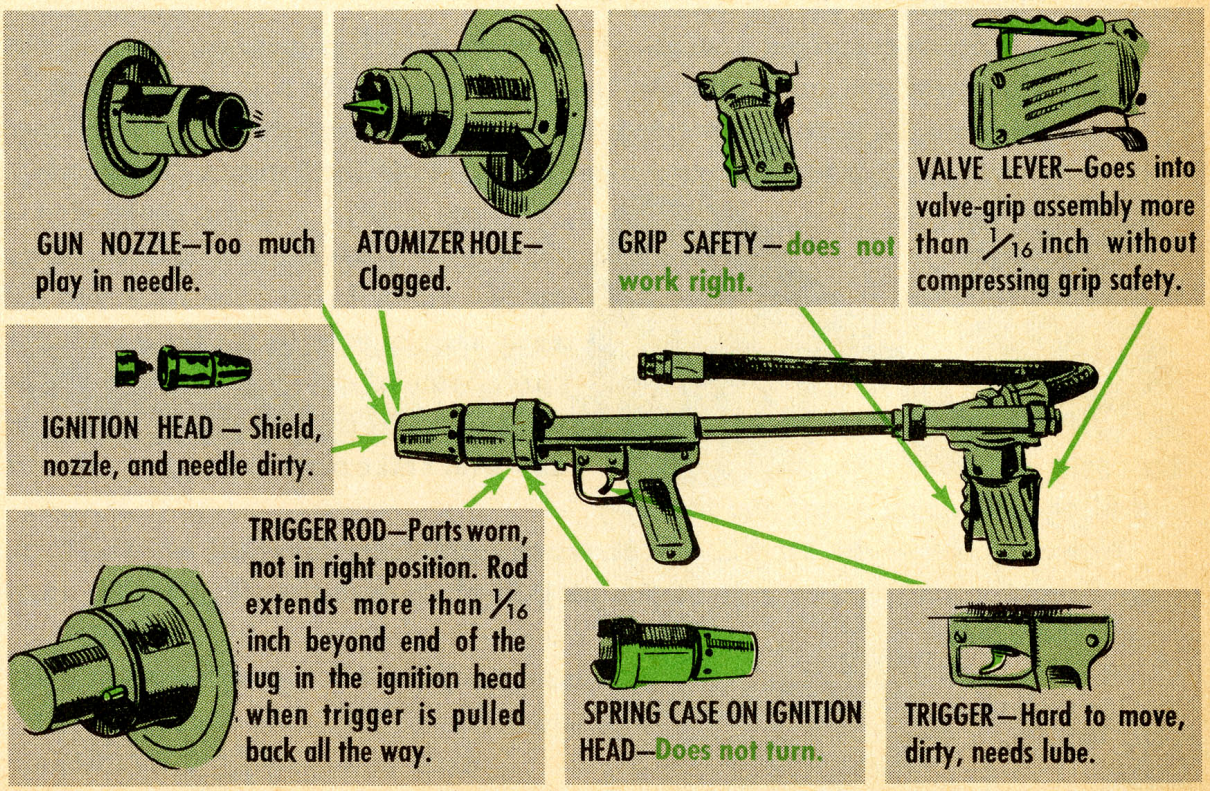
But there are a couple of things to keep in mind while you're checking your flame thrower—

MINOR DEFICIENCIES AND MAJOR DEFICIENCIES

The major deficiencies are the ones that would make the flame thrower dangerous to operate. Maybe you've heard your buddy say that he "cooked his goose" because he goofed on something . . . a goof in spotting major deficiencies could cook your goose—for real.

As for the minor deficiencies—you'll have to decide whether they really are minor or whether they could turn into major deficiencies. So if there's any doubt in your mind, don't take a chance—have your flame thrower in topnotch condition before you operate it. Major deficiencies are listed in green type.

Your flame thrower fuel and pressure tanks **must** be empty before you start. Remove your ignition shield and make sure there's no ignition cylinder on the spring case.



BE YOUR OWN INSPECTOR ON

YOUR FLAME THROWER

The best way to keep from running into inspection trouble with your equipment is to make like an inspector yourself. Say, for instance, you have an M2A1 Portable Flame Thrower. Here are the things you'd look for.

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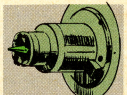
GUN NOZZLE—Too much play in needle.

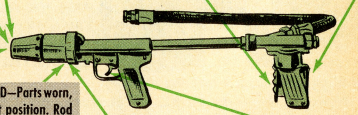


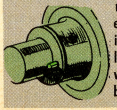
ATOMIZER HOLE—Clogged.

GRIP SAFETY—does not work right.

VALVE LEVER—Goes into valve-grip assembly more than 1/16 inch without compressing grip safety.

IGNITION HEAD—Shield, nozzle, and needle dirty.





TRIGGER ROD—Parts worn, not in right position. Rod extends more than 1/16 inch beyond end of the lug in the ignition head when trigger is pulled back all the way.

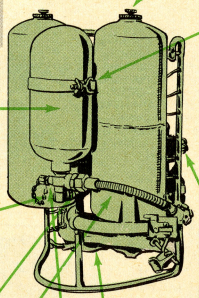
SPRING CASE ON IGNITION HEAD—Does not turn.

TRIGGER—Hard to move, dirty, needs lube.

PRESSURE REGULATOR—Threaded connections loose.

FILLING PLUG ASSEMBLIES—Dirty, hard to turn. O-Ring missing or deformed.

CONNECTION BETWEEN PRESSURE TANK AND PRESSURE REGULATOR TUBE—Loose connection; nipple not secured by quick-disconnect coupling.



PRESSURE TANK CLAMP—Does not hold pressure tank tight.

PRESSURE TANK—Broken, worn parts.

TANK COUPLING—Dirty; coupler washer damaged.

PRESSURE-TANK VALVE—Does not turn freely.

SAFETY VALVE—Condensation not drained in cold weather (freezing temperature and below).

HOSE NIPPLE (tank end)—Dirty, badly nicked.

CHECK-VALVE CAP—Loose.

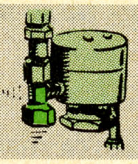
CANVAS, WEBBING AND CORD OF CARRIER—Mildewed, rotted, worn.

FUEL HOSE—Cracked, worn, loose at threaded connection between gun and fuel-valve body.

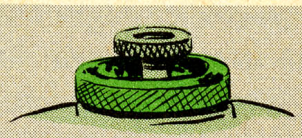
Publications and forms missing—TM 3-376, LO 3-376, DA Form 478, DA Form 2018. Tools and spare parts missing.

FLAME THROWER

PRESSURE REGULATOR—Threaded connections loose.



FILLING PLUG ASSEMBLIES—Dirty, hard to turn. O-Ring missing or deformed.



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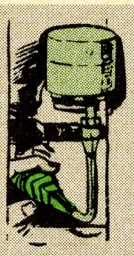

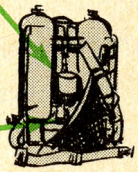

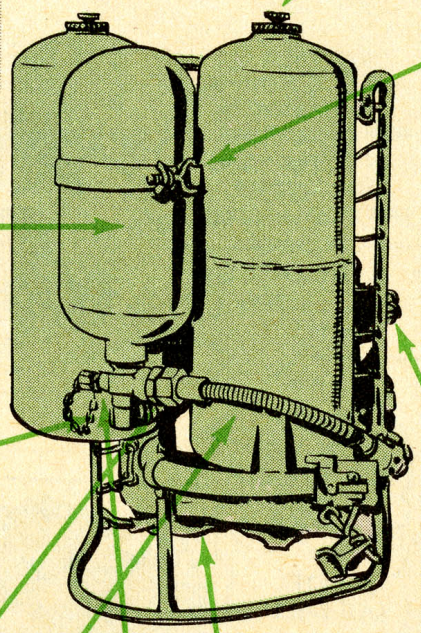

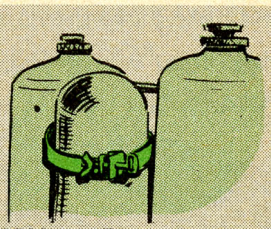

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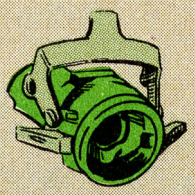
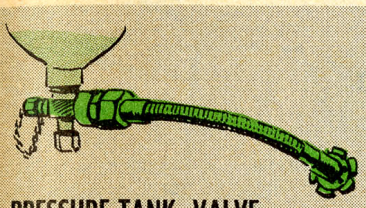
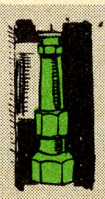


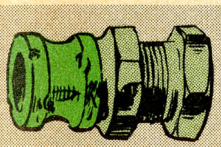
TANK COUPLING—Dirty; coupler washer damaged.



PRESSURE-TANK VALVE—Does not turn freely.



SAFETY VALVE—Condensation not drained in cold weather (freezing temperature and below).



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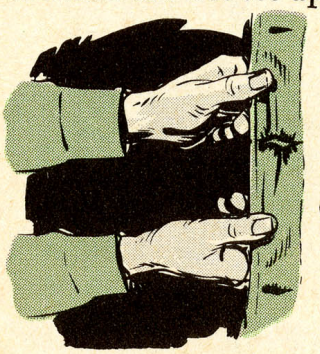
A word or three about . . .

YOUR GI

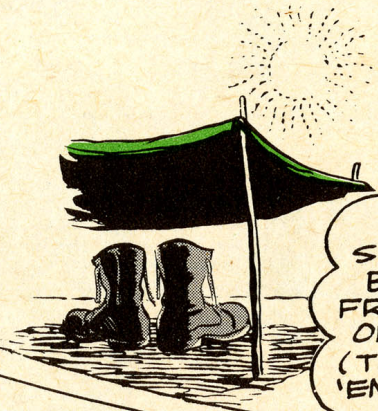
A soldier might lose his equipment, ammunition—even food. But when he loses his shirt, he's really had it!

Few things are more important, 'tis true, than the clothes on your back. Which is why a man always makes sure he pulls some preventive maintenance on his personal gear.

These PM tips can be especially handy 'cause your monthly maintenance allowance won't buy you a whole new outfit when the urge—or need—hits you. Far from it. It's not set up for that.

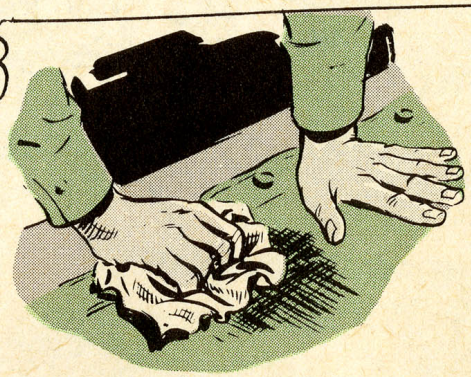


CHECK FOR LOOSE BUTTONS AND RAGGED BUTTON-HOLES.

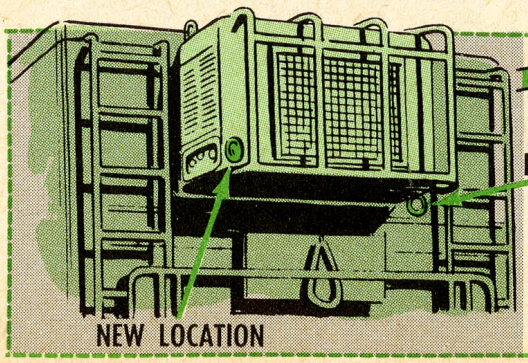


KEEP WET SHOES AND BOOTS AWAY FROM RADIATORS OR DIRECT SUN (THAT CRACKS 'EM FOR SURE).

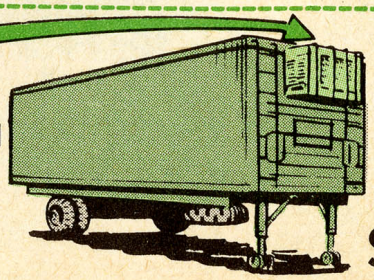
DRY OUT WET OR DAMP GEAR SO'S TO STOP MILDEW.



GET SPOTS OUT BEFORE THEY BECOME PERMANEN



OLD LOCATION



REAL COOL SUPPORT

A word or three about . . .

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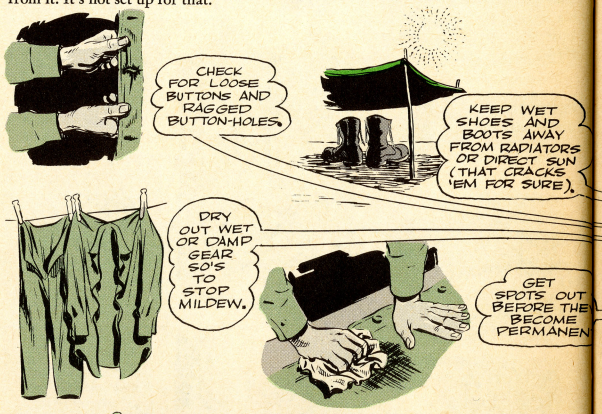

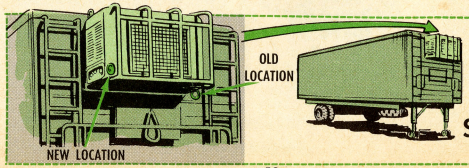

REAL COOL SUPPORT

And speaking about that allowance, are you up to the minute on what's coming to you in the line of personal clothing? Such things as the monthly basic and standard maintenance allowance . . . special supplementary clothing allowances . . . replacement of lost or damaged clothes . . . alterations (Sam, you made the pants too long!) . . . and what clothes a man hangs on to when he leaves the Army.

It's all there in one current publication: **AR 700-8400-1** (24 Dec 57). That AR supersedes a raft of earlier AR's and SR's on clothing (in the "32" group).

Been getting hot and bothered over the thermometer on your 7½-ton, 2-wheel refrigerator semi-trailer? You can simmer down now. Your replacement problem is over.

Just hustle your reefer back to QM field maintenance, and they'll apply MWO 10-1300-1 (10 Apr 58). It'll give you a new thermometer on your reefer unit.

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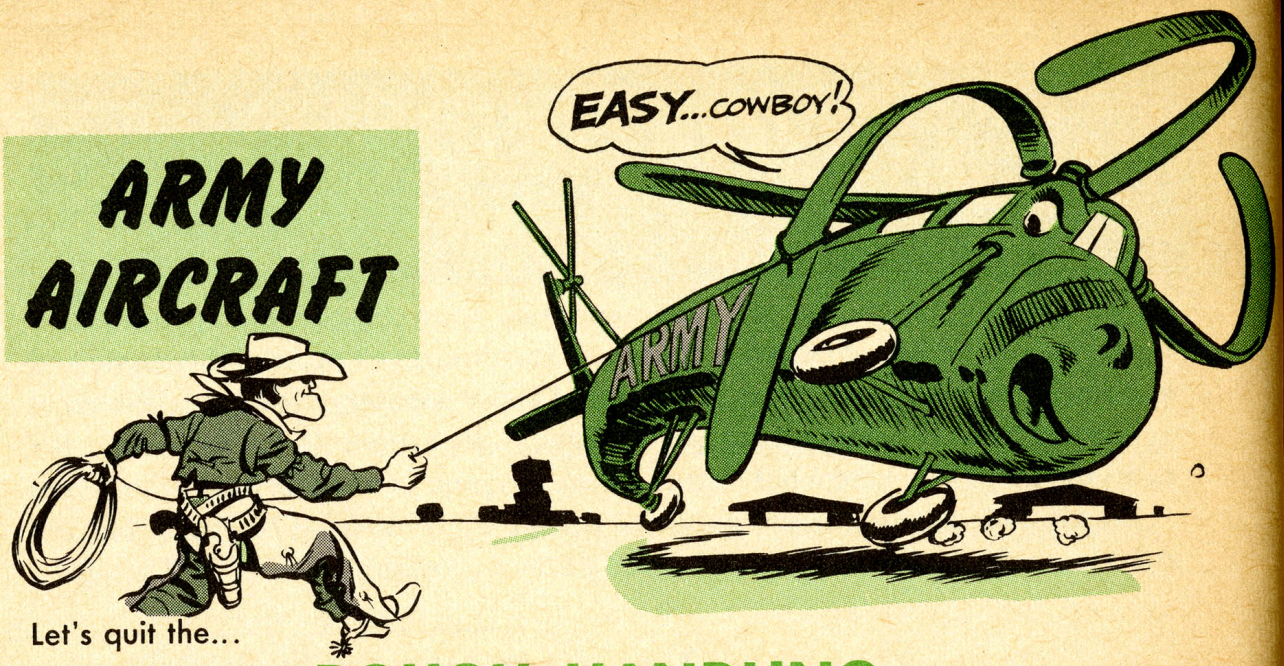
ARMY AIRCRAFT



Let's quit the...

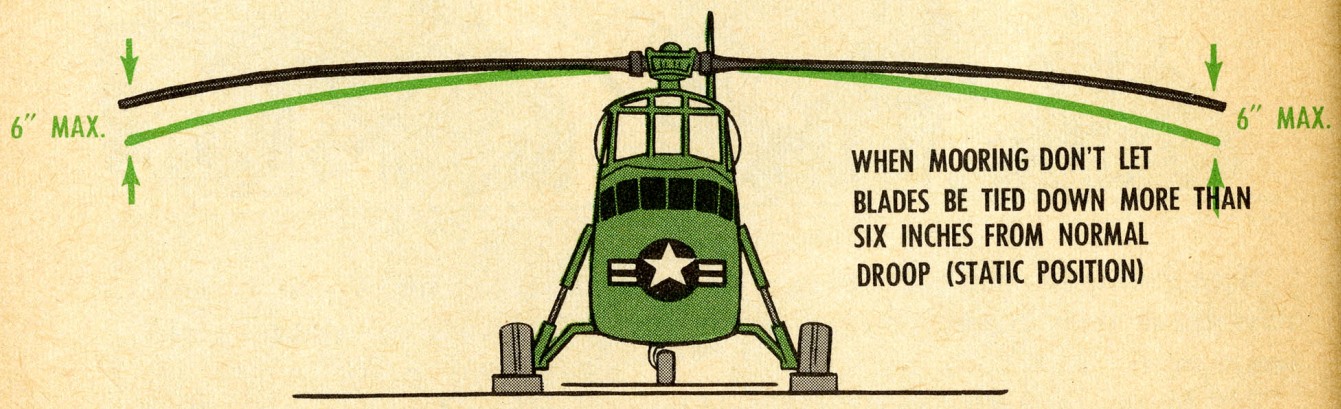
ROUGH HANDLING

Gently, gentlemen, gently, when tying down your whirlybirds. Too many frustrated Lone Rangers have been throwin' a rope on the blades of their Choctaws (H34's) and wrasslin' 'em down to get the tipsocks on.

Leave us face it. Moorin' a ship is not a calf ropin' at the rodeo. Moreover, pullin' the blades down more than five feet below the natural droop puts too much load on the root end. Yankin' 'em around with a rope can also damage the pockets and the spars.

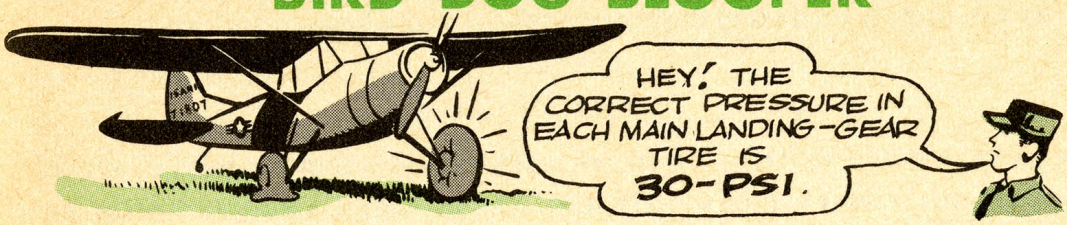
So, please to use a word-stand, stepladder, or long assist stick to get those socks on. Gives an emergency, like mebby an unscheduled landing on cross country, where there are no facilities, you can pull the blades down, but never more than five feet below the droop position.

The full dope on mooring is in TM1-1H-34A-2, and you'll notice that you only tie the blades down six inches, or less, from normal position.



Another thing, when you wanta pull a rotor through, do it from the rotor-head, not from the end of the blades.

BIRD DOG BLOOPER



Remember! The correct pressure for your Bird Dog's (L-19's) main landing-gear tires is 30-PSI. A couple of sharp-eyed mechanics caught the misprint in TM-1L-19A-2 and the-1 and reported it on an Unsatisfactory Equipment Report.

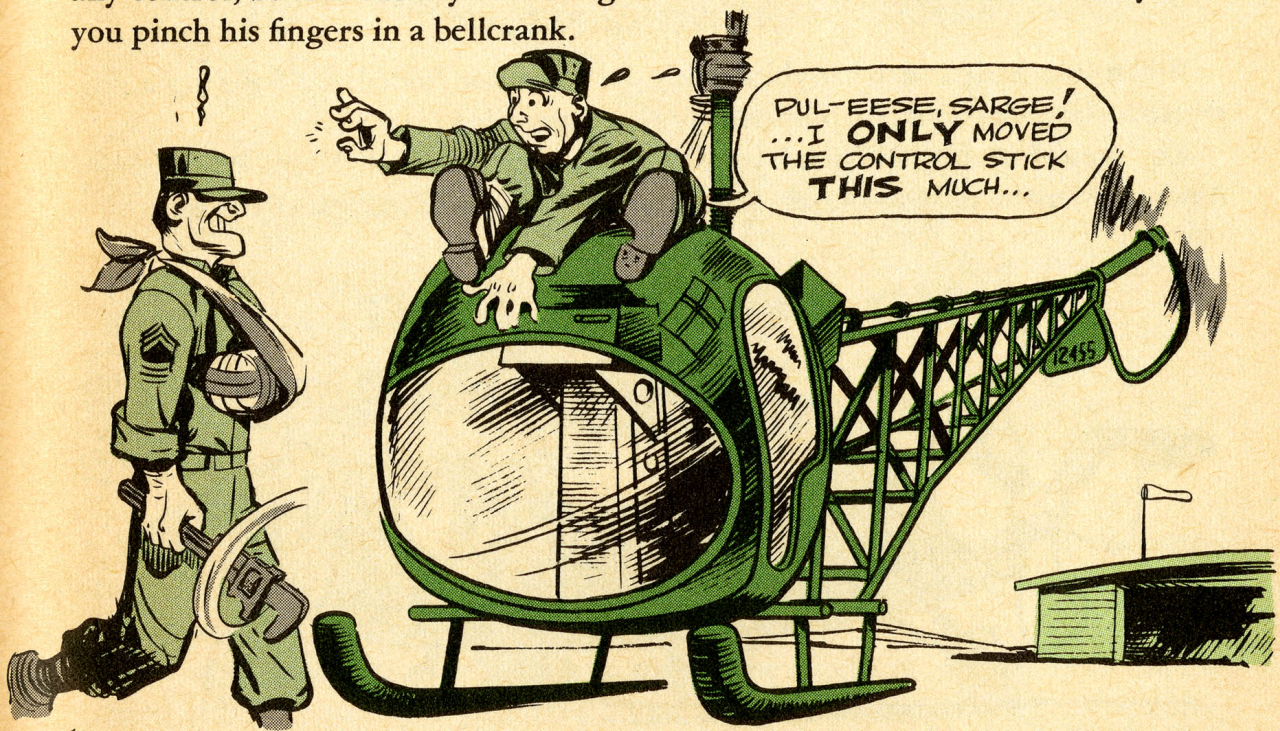
You'll find it handy to know that the UER can be used to report unsatisfactory publications as well as equipment deficiencies.

GROUND SAFETY

Here're a couple more notions to help you keep your birds happy and your hide in one piece.

CONTROLS

Never play with 'em. Move controls only when you need to. And before moving any control, be sure nobody's working on it. Your crew chief won't thank you if you pinch his fingers in a bellcrank.



Also be sure everybody is clear of the control surfaces, particularly during control checks (you don't want to bust anybody with a rotor blade.)

And, any time you disconnect a control, or take out part of the system, take the trouble to tag the cockpit controls. This'll keep anybody from moving it, possibly

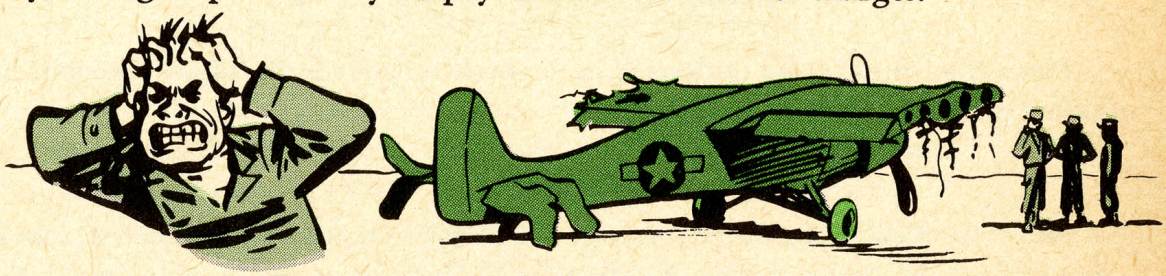
lousing you up when you come to put the parts back. It'll also make sure no one tries to fly the ship. If he missed the entry on the 781-2—heaven forbid!

PARTS

When you've taken anything off the aircraft, stow it out of the way, if possible. Otherwise, mark it so it can be clearly seen, day or night. You don't want some pore sentry falling into a pile of cowlings.

MOVING

When you tow or push an aircraft, have someone on the brakes, and a man at each wingtip and the tail to watch clearances. Wingtips are expensive, especially if they come gallopin' across your payroll on a statement of charges.

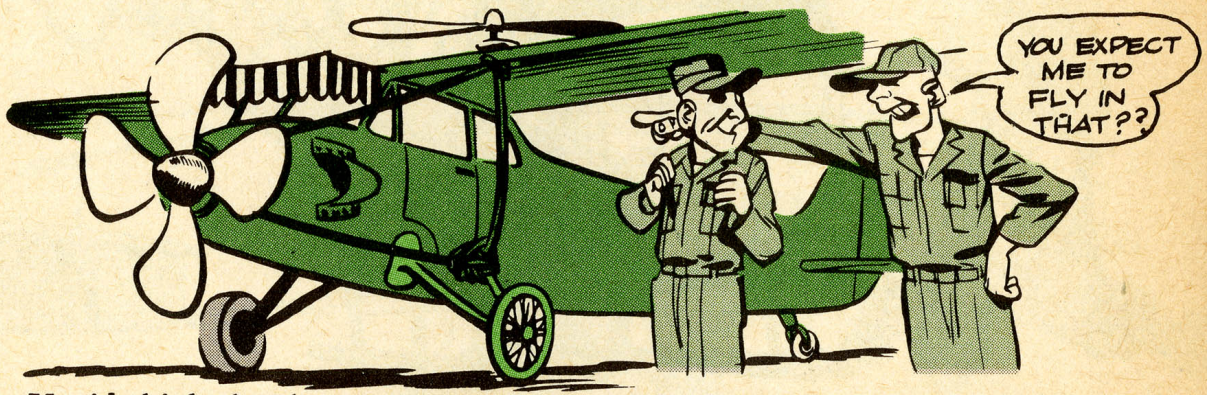


HANGARING

When you hangar a whirlybird with the rotor not folded, try hanging a red streamer from each blade tip so nobody'll run anything into 'em.

Try these for size, and send your own ideas to Sgt Half-Mast, PS, Raritan Arsenal, Metuchen, New Jersey, so he can pass 'em on to the rest of the mob.

NO JAWBONE STUFF



You'd think that by now everyone would know that you can't go tinkering with aircraft without authority. But some hotshots are still making jawbone modifications. You can't do it. Men's lives depend on those aircraft, and the law is laid down to protect 'em.

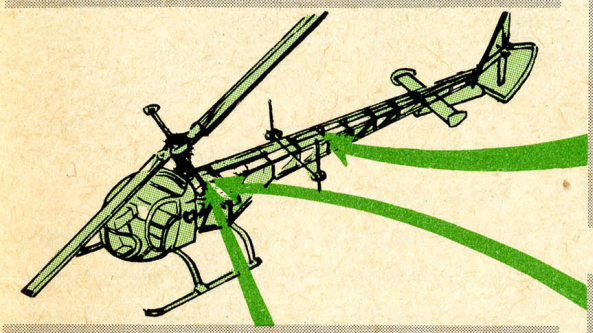
AR 750-712 (5 June 57) tells you just exactly what you are allowed to do. You want to believe it because they'll hold you to it. And if your aircraft takes harm from any unauthorized tinkering you may have done to it, it'll be your undoing. (Not to mention the bad deal of ending up with your pay in a sling.)

So stay legal, friend, and stay happy.

SHOOT THE SIOUX SHAFT SOFTLY

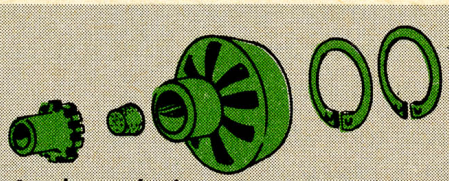
With grease, that is.

1 Overlubricating the forward short shaft coupling of the tail rotor drive-shaft on Sioux (H-13) helicopters can cause all kinds of trouble, including a crash.



3 If the bearing or the bearing hanger lets go, you've got a wild shaft, and that could account for some of the busted tail booms and busted aircraft, not to mention busted pilots and passengers.

2 Too much grease at the coupling grease-locks it. That is, it prevents any end play. So any forces coming up from the tail boom are passed right on to the number one bearing hanger.



4 So please check yours. Be sure there's about 1/8-in travel fore and aft on the shaft. Also, be sure the dust cover (Bell Part No. 47-644-219-1, FSN 1560-508-2736) isn't bulged. (And in spite of the -4, this is a dust cover, not a grease retainer.)

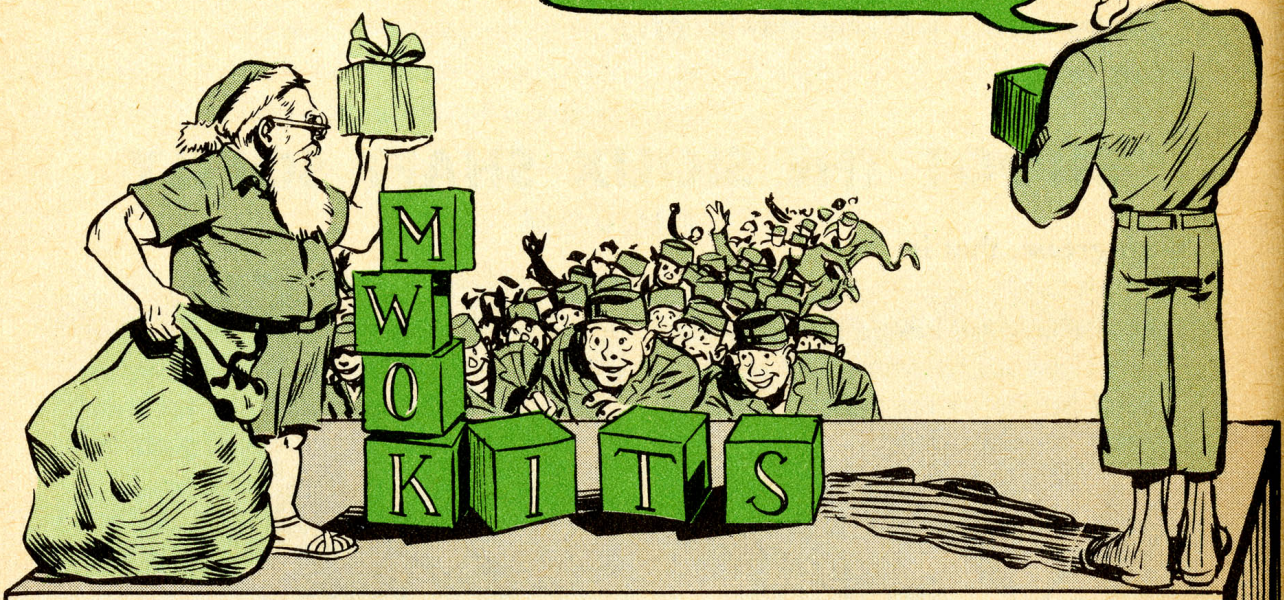
Y'see, if you over-fill, it'll throw grease out to the weakest spot on the cover, causing the shaft to be outta balance, and since the shaft turns faster than the engine, you'll get a high-frequency vibration.

And when you lube your bird keep these same checks in mind. Go easy on the grease, and stop while you still have about 1/8-in travel fore and aft. (Naturally, cold weather will make this sorta stiff, but you can still feel it.) And never pump up the dust cover.

If you find a bulge in the cover, or can't move the shaft, you'll have to take the cover off and clean it out.

Santa's Coming Early This Year—

HEY! FREE ENGINEER MWO KITS



It's a long time till Christmas, but old Santa Claus has early presents for everybody. The good news—for all Army and Air Force outfits—is this:

You can get the modification work order kits needed to complete all Engineer MWO's on your equipment free. That includes from first through fifth echelon. But this doesn't apply to parts and materials **not supplied as kits**—they still take citation of funds.

Here's how to get the free kits:

Take a check on the Engineer MWO's that haven't been done on your equipment yet. (Department of the Army Pamphlet No. 310-4—with changes—and the published MWO's you already have—with changes—will give you the scoop.)

For MWO Kits to be applied at the organizational maintenance level, submit a requisition through normal supply channels for Engineer repair parts to:

Commanding General
U. S. Army Engineer
Maintenance Center
P. O. Box 119
Columbus 16, Ohio

ATTN: EMCJX-S

The following information must be on the requisition:

1. MWO number.
2. Make, model and serial numbers of the end item (or items) to be modified.

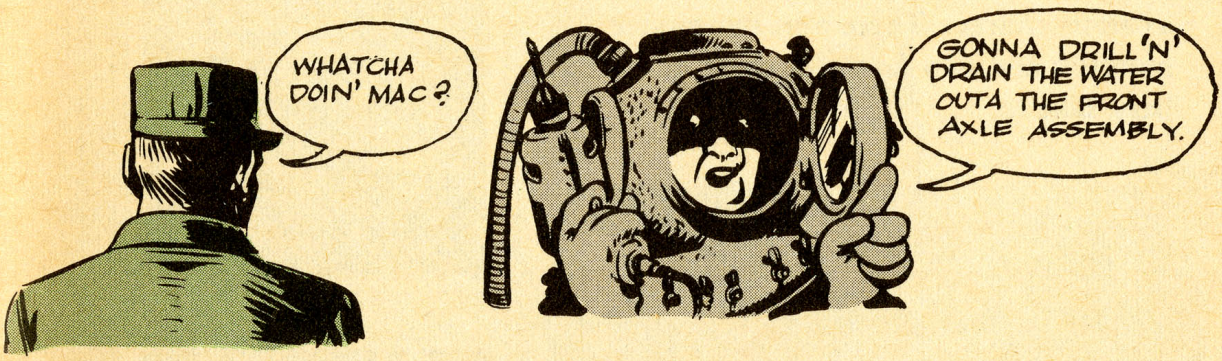
On MWO's needing kits that are applied by field and depot maintenance, tell support to requisition the kits at the same address. Support gets the kits—and kits only—for free, too.

Better get right with it and get your requisitions in to the Engineer Maintenance Center requesting MWO kits. Work with your support unit to make sure you cover everything.

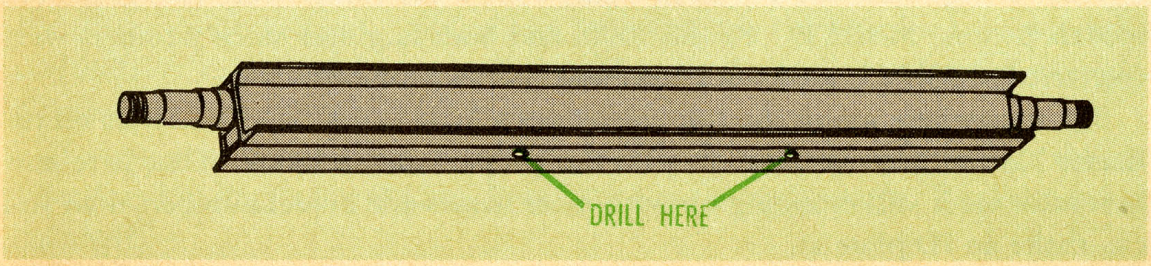
If you need any help on getting those requisitions off, get hold of the nearest Engineer Regional Maintenance Office, Engineer Regional Maintenance Representative, or Engineer Maintenance Technician. They'll give you a hand. Your maintenance officer or CO will get in touch with them for you. You can also get help from your Engineer depot maintenance shop, or direct from the Engineer Maintenance Center.

Keep this in mind: You can't get repaid for funds expended on local procurement to buy parts and materials, or for fabrication of MWO kits—unless you get specific authority from the Engineer Maintenance Center. So before you spend money locally on MWO's—check with the Engineer Maintenance Center.

DRILL & DRAIN

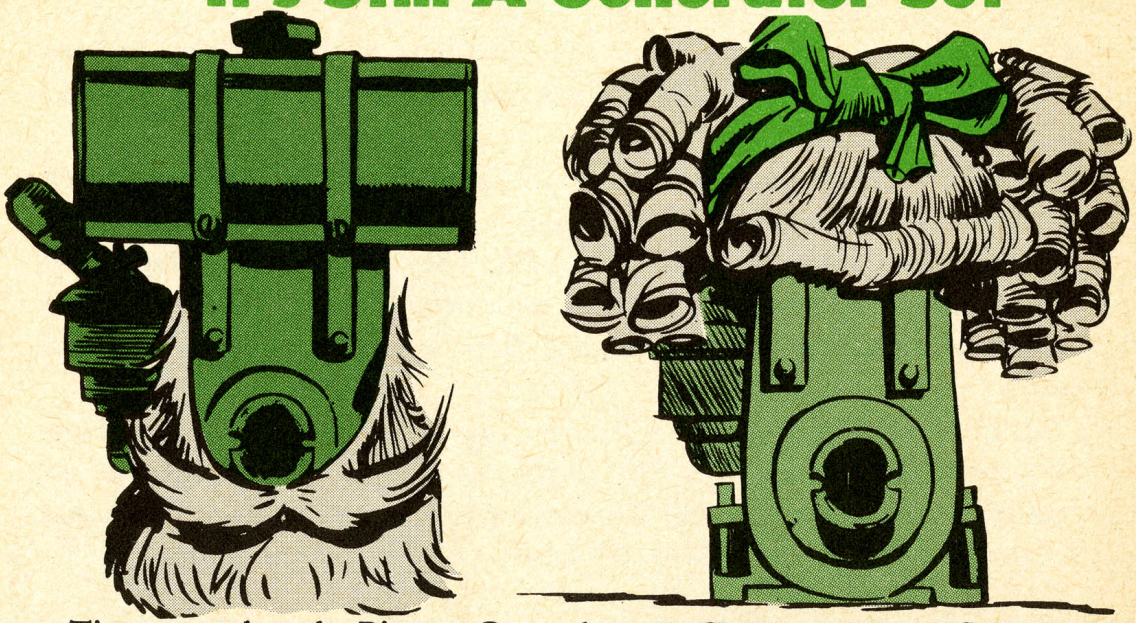


On your next maintenance service of the Model 848 Barber-Greene Asphalt Mixer, check for water in the front axle assembly. The way the assembly's made —two channel irons with the bottom inclosed—makes a place for water to collect. Drill two drain holes in the bottom plate section of the axle. That'll let water drain out of the axle assembly and keep it from rusting.



By Any Other Name...

It's Still A Generator Set



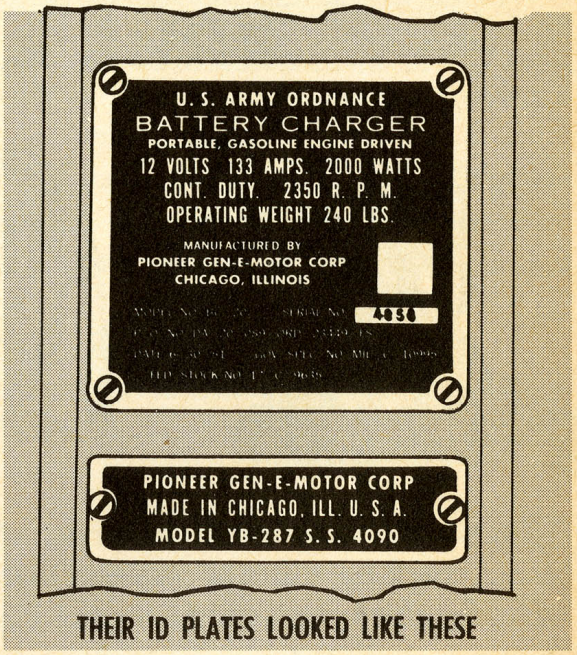
Time was when the Pioneer General Electric Motor Corporation generator set, FSN 6115-635-6625, was known as a battery charger. There were two model numbers and two Engineer stock numbers. Like so:

MODEL BC-20L-SS-4090

MODEL YB-287-SS-4090

ENG STOCK NO. 17-2807.300.700

ENG STOCK NO. 17-2805.120.500



THEIR ID PLATES LOOKED LIKE THESE

Then along came SM 5-1-6100 (May 1956) and things were changed. Both models became Model BC-20L-SS-4090, and both Engineer stock numbers were converted to FSN 6115-635-6625. New ID plates were called for.

But somewhere along the line things got a little out of hand, and it seems the names haven't been keeping up with the proper nomenclature. That here-now generator set is still cropping up with more names and model numbers than you can shake an ID plate at.

Here's the correct nomenclature, model and FSN that should appear on the ID plates for your generator set:

Generator Set, GED, Pioneer Gen-E-Motor Corporation
Model BC-20L. FSN 6115-635-6625.

It's just plain model number BC-20L now. The SS-4090 part of the number was dropped since it was only the manufacturer's shop spec number.

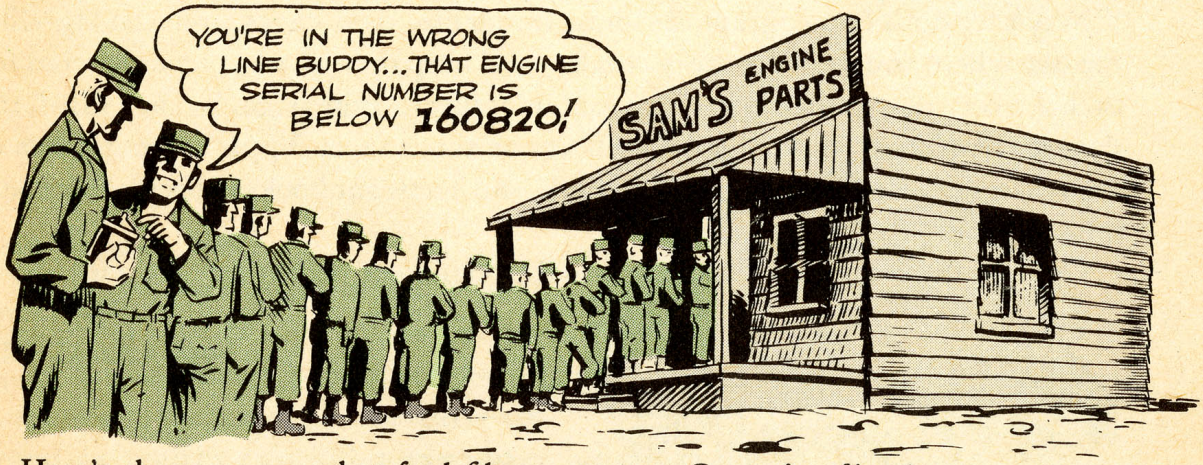
If yours doesn't read this way, drop everything and yell for your Engineer maintenance men.

Your Engineer support friends'll handle the job of removing the old plates, and stamping and installing the new ones like SB 5-70 says.

No sweat . . . no confusion.

By The Numbers...

The Right Fuel Filter



Here's the story on what fuel filter to use on Cummins diesel generator sets, model MHRSGA-601-150, 150-KW, 60-cycle.

If your generator set has an engine serial number from 160820 through 170846, get your filter by local purchase. Don't use the one listed in Eng 7, 8 & 9-5274. Purchase it with Federal Supply Code 73370 (Fram Corporation), part number C1106PL. It's also available under Federal Supply Code 15434 (Cummins Engine Company), part number BM33761.

If your generator set has an engine serial number below 160820, get the fuel filter listed in Eng 7, 8 & 9-5274. Requisition it through regular Engineer supply channels.

CONTRIBUTIONS

JOT IN A JIFFY

Dear Editor,

Writing all the info in the log books for our Nike-Ajax missiles is one big job, especially when you have to record all the checks. Our log books were beginning to look like last year's mail order catalogues before we hit on an idea.

What we do is mimeograph the most frequently used pages from the log—like the one where you record battery checks—and keep these pages, one numbered for each missile, all together in just one manila folder. As the pages become filled, the data is transferred to the log book all at one time. Saves flippin' through lots of log books each time just to record a check, and keeps our books in pretty fair shape a lot longer.

Our inspectors buy this idea, too, since they can check the paper work a lot faster.

The Gang
54th AAA GM Bn

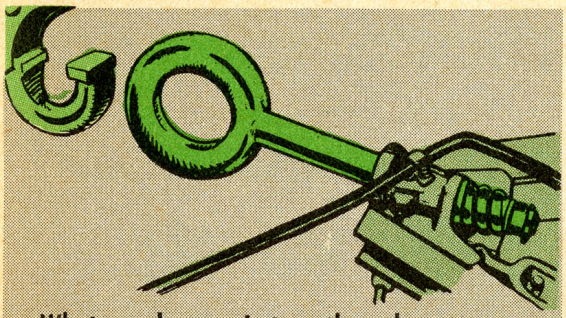
LOONEY LUNETTES

Dear Editor,

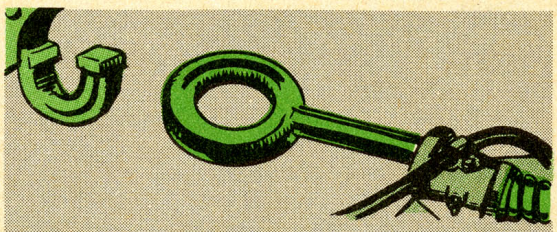
Recently we took our M100 ¼-ton cargo trailers on a few field problems over rough terrain. We found that the trailer lunettes had frozen up solid—and it wasn't for lack of lubrication, because they were greased every month as per LO 9-871A.

With the lunettes stuck solid, they didn't have any give to them. So, when towing over the bumpy terrain, with the twisting action set up between the towing vehicles and the trailers, and no give in the lunettes, the lunettes twisted out of shape and a few pintle hooks also got beat up.

These trailers, up to this time, were used mostly over good, paved roads, where there'd be very little or no twisting action between the trailer and its towing vehicle. So, without any regular movement, the lunettes just froze solid.



What we do now is turn those lunettes to a vertical position when we unhook them and park them for the night.

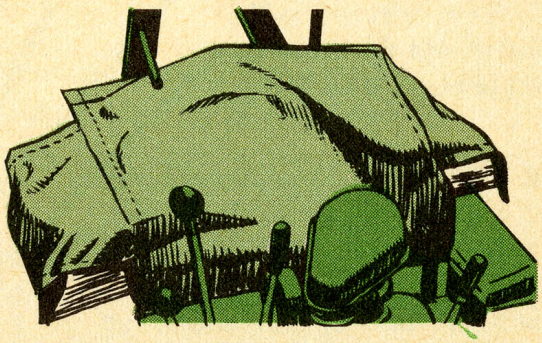


Next day, when we go to use the trailers again, we turn the lunettes back to their horizontal position for towing. This regular 90-degree twist is all that's needed to keep the lunettes moving—plus regular lubing.

As far as those trailers in storage, it'd be a good idea to go down the line once every few days and give the lunettes a couple of turns—just to make sure they're operating easy-like.

Sgt Fred L Buckley
Ft McClellan, Ala.

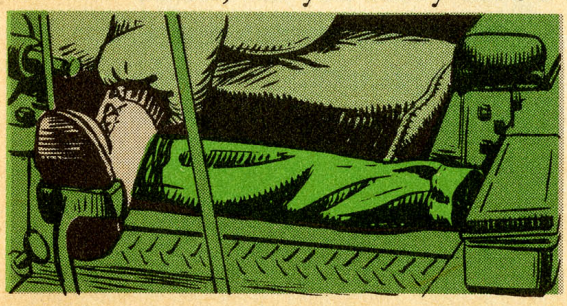
KEEP YOUR SEAT COVERED



Dear Editor,

Big replacement items on tractors that are left sitting outside overnight are seats and arm rests. The leatherette coverings—and the springs in the seats—are usually ruined by rain within two years.

We made canvas covers for our Cat D7 tractor seats to keep off the rain. Every tractor should have one. It helps a little to tilt the seat at night for drainage, as the TM directs, but you really need a cover to cut down on replacement costs.

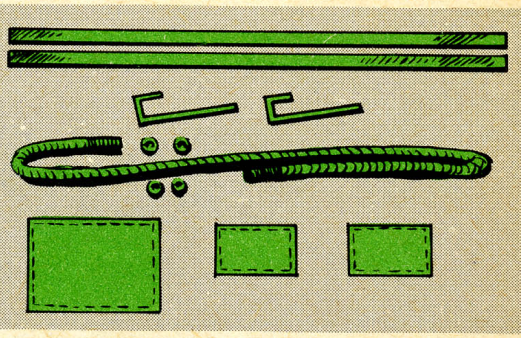


This cover can be put on and removed in a few seconds. When it's stowed, it's out of the operator's way and doesn't interfere with any of the controls. All it takes to make it is canvas and some scrap metal.

You'll need these materials to make a seat cover for the Cat D7. Change the dimensions around to suit the tractor you have.

D7 SEAT COVER MATERIAL

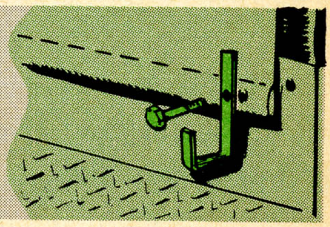
1. Two 48-in steel bars of about ½-in diameter.
2. Two steel brackets, about 12 inches long.
3. Four grommets and some rope.
4. A piece of canvas 52 inches long and 48 inches wide. Two pieces of canvas 28 inches long and 15 inches wide.



HOW TO MAKE IT

1. Attach the two smaller pieces of canvas on the sides of the big piece nine inches from one end of the big piece. We'll call that end the bottom. The best thing to use for the job is canvas repair kit, FSN 8340-262-5767. If you can't get hold of it or a heavy needle, use rivets.

6. Take the bolts off the kick-panel. Now fasten the canvas and steel rod, and the brackets, to the kick-panel with the kick-panel bolts.

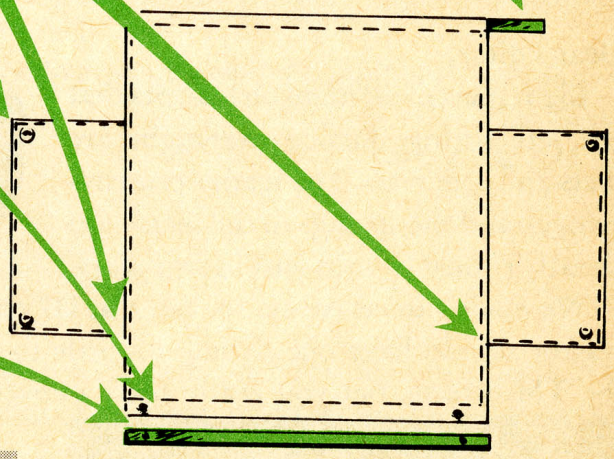


2. Put the four grommets in the corners of the flaps.

3. Put a ¾-in hem in the bottom and the top of the big piece of canvas.

4. Drill holes three inches from each end of one of the steel bars. Make the holes as big as the bolts on the dozer kick-panel. Punch holes in the same places in the bottom hem of the canvas. Put the steel bar in the canvas, with the holes lined up.

7. Put the other steel bar in the top hem of the canvas. Now the seat cover's all ready to go.



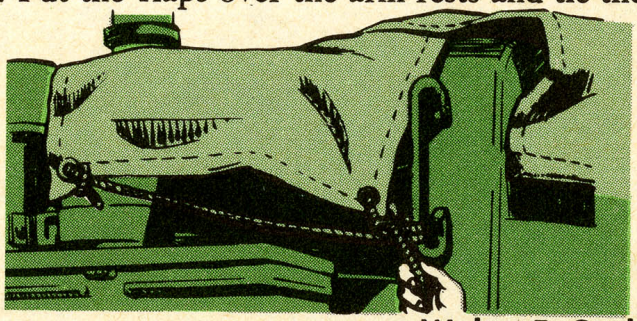
5. Drill holes in the brackets.

To stow it, just roll it up around the steel bar in the top hem. Fold the flaps in.

When it's all rolled up, the cover fits right into the brackets against the kick-panel.

Comes time to bug out for the day, and you just unroll the canvas. The bar in the top holds the cover down there. Put the flaps over the arm rests and tie the flaps down by putting ropes in the grommets. That'll keep the cover in place even if the weather gets rough.

At the start of the day, it only takes a few seconds to roll up the cover and stow it.



Walter F. Cook
Aberdeen Proving Ground, Md.

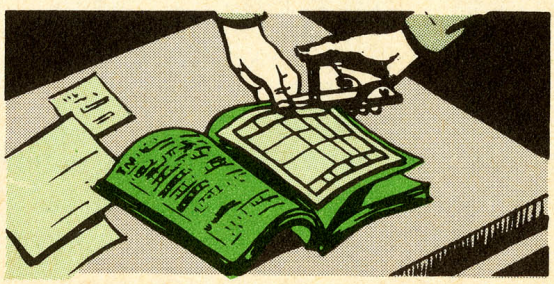
(Ed Note—Saves money, and it sure beats sitting on wet cushions and rusty springs. Nice going.)

SHOW YOUR OWN

Dear Editor,

Lots of publications talk about a DA (Department of the Army) or DD (Department of Defense) form of one kind or another. But they never show you what it looks like. The turnover in our outfit is so high, tho, that just about every month we've got a new man making out our forms.

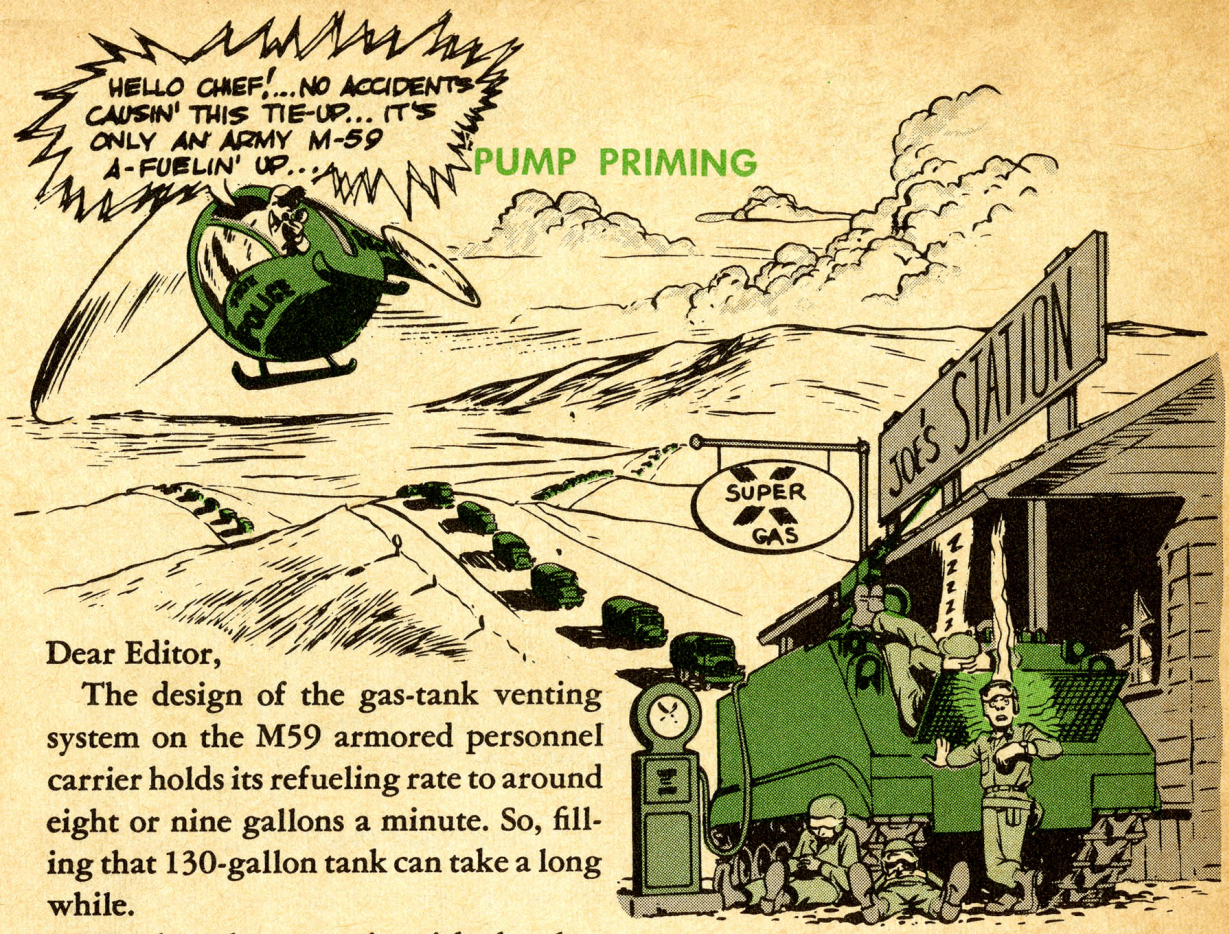
So, instead of hunting up a copy of each form to use for instructions, I use a staple or paper clip to attach the form to the same page of the TM on which that form is described. I do the same thing in each FM, TB, SB, etc., adding on each new form that comes along. When an old form becomes superseded, I cross it out and clip the later date one over it. This gives us an illustration of every form we have to use.



Pvt R. Holcroft
APO, New York

(Ed Note—It's worth the trouble. And DA Pam 310-2 (Index of Blank Forms) can fill you in on any new ones you might miss.)

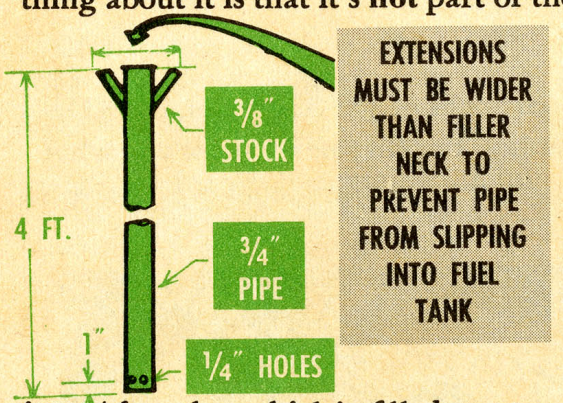
PUMP PRIMING



Dear Editor,

The design of the gas-tank venting system on the M59 armored personnel carrier holds its refueling rate to around eight or nine gallons a minute. So, filling that 130-gallon tank can take a long while.

We thought up a gimmick that lets us increase the refueling rate to 19-GPM, without getting any blow-back. The nice thing about it is that it's **not** part of the vehicle. You can make just one, leave it in your fueling area, and it can be used for every M59 that pulls in for gas.



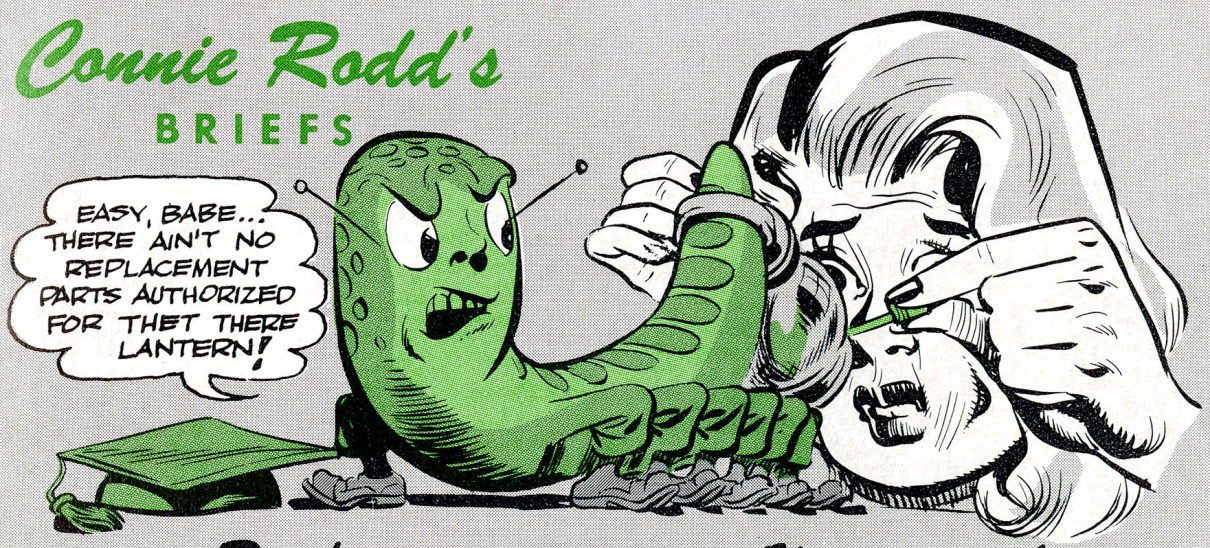
It's nothing more than a 4-ft piece of ¾-in pipe, with two ⅜-in inserts. We drilled two ¼-in holes, one inch from the bottom, to help vent.

To use, just put this pipe, which acts as an additional vent, into the gas tank filler pipe of the vehicle and start pumping. After the vehicle's filled up, remove the additional vent and the vehicle's ready to roll. That's all there is to it.

SFC Urguhert, Cooper,
Norwood and Zaleski
Fort Benning, Ga.

(Ed Note—Swell idea. The design people are working on a production fix that'll let you pump as much as 50-GPM. But, until this comes out, your vent'll fill the bill nicely. It's not attached, so it's not a modification to your vehicle—and you only need one for each fueling station. 'Course, it's got to be kept as clean as a whistle.)

Connie Rodd's BRIEFS



Peg 'em

Wondering where to store the tools you use on your Nike-Ajax missile? Why not rig up a peg-type tool board in your assembly building? It's handy, and you'll know they're there when you need 'em.

Drain 'em daily

You're playing safe when you exercise the hull drain-valves on your combat vehicles daily. Otherwise, rust and dirt can gang up on you, making those valves stick when you need them most. Best bet is to open and close them a few times as part of your daily PM service.

Stop stoppage

You can call a halt to stoppages with the M37 .30-cal machine gun by using the front barrel bearing instead of the M6 flash hider. The flash hider gives you a short recoil . . . and short recoil means stoppage.

Knock 'em down

The turrets on your M48 and M48A1 medium tanks were built to just clear the rear deck grille doors when you rotate. Leaving the handles sticking up on the front grille doors not only mangles the handles—it puts a strain on your turret mechanism, too. Knock 'em down every time you finish looking into your engine compartment.

Not your job

Put down that sledgehammer. It's strictly your support unit's job to remove the vent assembly on your recoilless rifle—be it the M20 75-mm, the M27 105-mm or the M40A1 or M40A1C 106-mm. They have the tools for the job.

Timing marks missing?

Ignition timing marks are missing on some fan drive pulleys (FSN 2540-770-5719) on ¾-ton trucks M37, M42, M43 and M201. Check your pulleys to see if they have 'em. If they're missing, support will put the timing marks on for you.

Right end

There's only one right way to use the stock to clean the bore of your M3 or M3A1 .45-cal submachine gun. You work from the muzzle end. Pushing the stock in from the chamber end is a good way to chew up the chamber.

Bon voyage!

Whoa there! Getting a missile ready for shipment back to depot? Before you say, "Goodbye, missile," give a final looksee to make **sure** all high pressure air, explosive compartments, battery and liquid propellants are out, so's your missile'll have a safe journey. Could be a little embarrassing if you let an armed missile go.

WEAR IT OUT

Your Equipment's Supply Manual Authorizes You Another Copy...!